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ABSTRACT

In 1990, the National Assessment of Educational Progress (NAEP) included a Trial State Assessment (TSA); for the first time in NAEP's history, voluntary state-by-state assessments were made. In 1992, the NAEP Program included an expanded TSA in fourth-grade reading. The 1992 reading assessment considered students' performance in situations that involved reading different kinds of materials for different purposes. The fourth-grade assessment measured two global purposes for reading--reading for literary experience and reading to gain information. In Michigan, 2,446 students in 100 public schools were assessed. This report describes the reading proficiency of Michigan fourth-graders and compares their overall performance to students in the Central region of the United States and the nation (using data from the NAEP national assessments). The distribution of reading results and reading achievement level results are provided for subpopulations of students (race/ethnicity, type of location, parents' educational level, and gender, and performance according to purpose for reading). To provide a context for the assessment data, participating public school students, their reading teachers, and principals completed questionnaires which focused on: policies and practices related to reading (time for instructional activities and instructional resources for reading); delivery of reading instruction (instructional materials and activities, workbooks/worksheets/writing, discussion and group activities, time to read, reading and use of libraries, assessing progress in reading); reading instructors (preparation, experience and professional development); students' home support for literacy (reading outside of school and in the home and hours of television watched per day). The average reading proficiency of fourth-grade public school students in Michigan on the NAEP reading scale was 217 compared to 216 nationwide. (SR)

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NATIONAL CENTER FOR EDUCATION STATISTICS

NAEP 1992 Reading State Report for Michigan

The Trial State Assessment at Grade 4

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What is The Nation's Report Card?

THE NATION'S REPORT CARD, the National Assessment of Educational Progress (NAEP), is the only nationally representative and continuing assessment of what America's students know and can do in various subject areas. Since 1969, assessments have been conducted periodically in reading, mathematics, science, writing, history/geography, and other fields. By making objective information on student performance available to policymakers at the national, state, and local levels, NAEP is an integral part of our nation's evaluation of the condition and progress of education. Only information related to academic achievement is collected under this program. NAEP guarantees the privacy of individual students and their families.

NAEP is a congressionally mandated project of the National Center for Education Statistics, the U.S. Department of Education. The Commissioner of Education Statistics is responsible, by law, for carrying out the NAEP project through competitive awards to qualified organizations. NAEP reports directly to the Commissioner, who is also responsible for providing continuing reviews, including validation studies and solicitation of public comment, on NAEP's conduct and usefulness.

In 1988, Congress created the National Assessment Governing Board (NAGB) to formulate policy guidelines for NAEP. The board is responsible for selecting the subject areas to be assessed, which may include adding to those specified by Congress; identifying appropriate achievement goals for each age and grade; developing assessment objectives; developing test specifications; designing the assessment methodology; developing guidelines and standards for data analysis and for reporting and disseminating results; developing standards and procedures for interstate, regional, and national comparisons; improving the form and use of the National Assessment; and ensuring that all items selected for use in the National Assessment are free from racial, cultural, gender, or regional bias.

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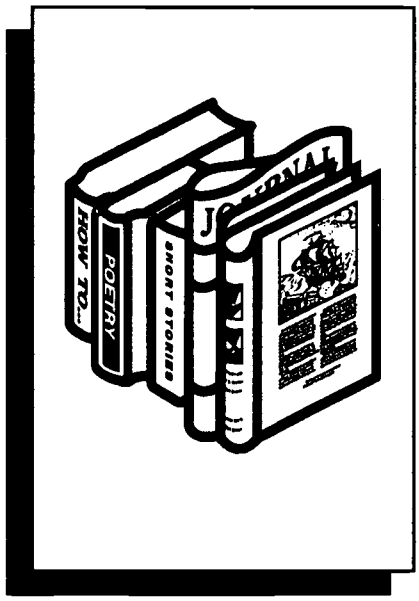
The Trial State Assessment at Grade 4



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INTRODUCTION

The National Assessment of Educational Progress (NAEP) is a Congressionally mandated project of the National Center for Education Statistics (NCES) that has collected and reported information for nearly 25 years on what American students know and what they can do. It is the nation's only ongoing, comparable, and representative assessment of student achievement. Its assessments are given to scientifically selected samples of youths attending both public and private schools and enrolled in grades four, eight, or twelve. The assessment questions are written around a framework prepared for each content area -- reading, writing, mathematics, science, and others -- that represents the consensus of groups of curriculum experts, educators, members of the general public, and user groups on what should be covered on such an assessment. Reporting includes means and distributions of scores, as well as more descriptive information about the meaning of the data.

New Reading Assessment Framework and Questions

The goal of the National Center for Education Statistics is to make data available for the public and to do so in accurate and understandable ways that are not misleading. The task is challenging because much of what matters in NAEP is changing:

- the *content* in response to the developing standards of various curricular groups;
- the *assessment questions* in response to new developments in assessments; and
- the *reporting* in response to increasing interest in student achievement relative to standards of student performance.

The framework for the 1992 Trial State Assessment Program in reading considered students' performance in situations that involved reading different kinds of materials for different purposes. The fourth-grade reading assessment measured two global purposes for reading -- **reading for literary experience** and **reading to gain information**. (The eighth- and twelfth-grade national NAEP reading assessments also measured a third purpose for reading -- reading to perform a task.) Reading for literary experience usually involves the reading of novels, short stories, plays, and essays. In these reading situations, the reader can determine how the author explores or uncovers experiences through the text and considers the interplay among events, emotions, and possibilities. Reading to gain information usually involves the reading of articles in magazines and newspapers, chapters in a textbook, entries in encyclopedias and catalogs, and entire books on particular topics. These reading situations call for different orientations to text from those in reading for literary experience because readers are specifically focused on acquiring information.

The assessment asks students to build, extend, and examine text meaning from four stances or orientations:

- ***Initial Understanding*** -- comprehending the overall or general meaning of the selection.
- ***Developing an Interpretation*** -- extending the ideas in the text by making inferences and connections.
- ***Personal Response*** -- making explicit connections between ideas in the text and a student's own background knowledge and experiences.
- ***Critical Stance*** -- considering how the author crafted a text.

These stances are not considered hierarchical or completely independent of each other, but are iterative. They provide a frame for generating questions and considering student performance at all levels.

The 1992 NAEP reading assessment uses a variety of innovative assessment approaches that are considered significant advancements over previous assessments. In addition to multiple-choice questions, the assessment primarily includes constructed-response questions that ask students to demonstrate comprehension beyond a surface level. Also, longer and naturally-occurring reading materials are used to provide more realistic reading experiences than in previous assessments.

Taken together, the changes in the 1992 reading framework and assessment activities preclude any comparisons between the results in this report and those for previous NAEP reading assessments. If the current NAEP framework is used in the future, as planned in the 1994 assessment, the 1992 reading data will supply the basis for a trend report.

A Transition in Reporting

Over time there have been many changes in emphasis of NAEP reporting, both to take advantage of new technologies and to reflect changing trends in education. In 1984, a new technology called Item Response Theory (IRT) made it possible to create "scale scores" for NAEP similar to those the public was accustomed to seeing for the annual Scholastic Aptitude Test (SAT). Educational Testing Service, in its role as Government grantee carrying out NAEP operations, devised a new way to describe performance against this scale, called "anchor levels." Starting in 1984, NAEP results were reported by "anchor levels." Anchor levels describe distributions of performance at selected points along the NAEP scale (i.e., standard deviation units). Anchor levels show how groups of students perform relative to each other, but not whether this performance is adequate.

In 1988, Congress established the National Assessment Governing Board (NAGB), assigning it broad policy making authority over NAEP, including the authority to take "appropriate actions . . . to improve the form and use of the National Assessment" and to identify "appropriate achievement goals for each . . . grade and subject area to be tested in the National Assessment." To carry out its responsibilities, NAGB developed "achievement levels," which are collective judgments about how students *should* perform relative to a body of content reflected in the NAEP frameworks. The result is translated onto ranges along the NAEP scale. For the 1992 reading assessment, this process was conducted for NAGB under contract by American College Testing (ACT), which has extensive experience in standard-setting in many fields.

With this background, the initial reports for the 1992 reading assessment mark NCES's continued attempt to shift to standards-based reporting of National Assessment statistics. The first transition to reporting NAEP results by achievement levels was for the NAEP 1992 Trial State Assessment in mathematics.[1] The impetus for this transition lies in the belief that NAEP data will take on more meaning for the public if they show what proportion of our youth are able to meet judgmental standards of performance.

Reporting NAEP results on the basis of achievement levels represents a significant change in practice for NCES. On occasion, this agency makes use of emerging analytical approaches that permit new, and sometimes controversial, analyses to be done. When doing so, this agency, just as other statistical agencies do when introducing new measures to supplement or replace old measures, also has provided the data according to the earlier procedures in addition to the new ones. In the case of the 1992 mathematics assessment, for example, the "anchor levels" or "scale anchoring" method of reporting was presented in an appendix.

[1] For a summary of the 1992 assessment of mathematics, see *NAEP 1992 Mathematics Report Card for the Nation and the States*. (Washington, DC: National Center for Education Statistics, 1993) and the individual 1992 Mathematics State Reports.

In this assessment, the "scale anchoring" methodology used by NAEP since 1985 has been used but in a new way. As implemented for this report, the scale anchoring process applies not to regular scale intervals (standard deviation units), but to the achievement levels established for fourth-grade students.[2] The details of this procedure are presented in Appendix D. The critical distinction here is that setting achievement levels attempts to describe what students *should be able to do* in various ranges of the NAEP scale while the anchoring procedure attempts to describe what they *can do* at those achievement levels using actual student performance data from the NAEP assessments.

Chapter 1 of this report describes how the 1992 standards were prepared and provides examples of assessment questions that illustrate the reading content reflected in the descriptions of the NAEP achievement levels. Chapters 1 - 6 include information on overall means, distributions of reading proficiency, as well as background questionnaire data, all taken directly from the results of the assessment questions.

Continuing Development Effort

We believe that the numerous completed and ongoing studies[3] will lead to national debate that can assure the public is well informed about these issues -- as informed they must be because the results will be a vital influence on what Americans come to think about the condition and progress of our schools. Indeed, measures of student learning may be as significant bases for public understanding about our nation's education system as the Consumer Price Index and the monthly unemployment statistics are in informing the public about our nation's economy.

In addition, members of the public need the data in this report to see for themselves what standards-based reporting might do and to evaluate the often conflicting claims of adherents and detractors of these changes in approaches to reporting on the educational achievement of American students. Reporting NAEP results to the public would be more clear if the language of the achievement levels, or standards, could also directly describe what students know and can do. In order to accomplish that, the frameworks, assessment questions, and achievement levels may need to be developed in tandem. That is easier to say than to do, however, because it implies a substantially larger pool of assessment questions, carefully designed to support reporting about performance relative to a set of performance standards. Clearly this is a developmental effort that will take time and several iterations, during which data supporting appropriate inferences about the performance of American students will be gathered on a continuing basis.

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[2] First, students were identified who performed at or around the three achievement levels on the scale (212, 243, and 275). Next, questions were identified that were answered correctly by 65 percent or more of the fourth-grade students at the cutpoint for that achievement level. Finally, reading educators were asked to analyze each anchor-level question and create summary descriptions of the skills and abilities evidenced by students who answered these sets of questions successfully.

[3] *Educational Achievement Standards: Setting Achievement Levels for the Nation. The Second Report of the National Academy of Education Panel on the Evaluation of the NAEP Trial State Assessment: 1992 Trial State Assessment.* (Stanford, CA: National Academy of Education, 1993).; U.S. General Accounting Office (GAO). *Educational Achievement Standards: NAGB's Approach Yields Misleading Interpretations.* June 1993. GAO/PEMD-93-12.; *Assessing Student Achievement in the States. The First Report of the National Academy of Education Panel on the Evaluation of the NAEP Trial State Assessment: 1990 Trial State Assessment.* (Stanford, CA: National Academy of Education, 1992).; R.L. Linn, D.M. Koretz, E.L. Baker, and L. Burstein. *The Validity and Credibility of the Achievement Levels for the 1990 National Assessment of Educational Progress in Mathematics.* (Los Angeles, CA: Center for Research on Evaluation, Standards, and Student Testing, UCLA, June 1991) CRESST Report 330.

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EXECUTIVE SUMMARY

A Recent History of NAEP

In 1988, Congress passed new legislation for the National Assessment of Educational Progress (NAEP) that continued its primary mission of providing dependable and comprehensive information about educational progress in the United States. In addition, for the first time in the project's history, the legislation also included a provision authorizing voluntary state-by-state assessments on a trial basis.

As a result of the legislation, the 1990 NAEP program included a Trial State Assessment Program in which public-school students in 37 states, the District of Columbia, and two territories were assessed in eighth-grade mathematics.[4] The 1992 NAEP program included an expanded Trial State Assessment Program in fourth-grade reading and fourth- and eighth-grade mathematics, with public-school students assessed in 41 states, the District of Columbia, and two territories.[5] In addition, national assessments in mathematics, reading, writing, and science were conducted concurrently with the Trial State Assessment Program in 1990 and in 1992.

School and Student Participation in the Reading Assessment

In Michigan, 100 public schools participated in the fourth-grade reading assessment. The weighted **school** participation rate was 90 percent, which means that the fourth-grade students in this sample of schools were directly representative of 90 percent of **all** the fourth-grade public-school students in Michigan.

[4] For a summary of the 1990 program, see Ina V.S. Mullis, John A. Dossey, Eugene H. Owen, and Gary W. Phillips. *The State of Mathematics Achievement: NAEP's 1990 Assessment of the Nation and the Trial Assessment of the States.* (Washington, DC: National Center for Education Statistics, 1991).

[5] For a summary of the 1992 assessment of mathematics, see *NAEP 1992 Mathematics Report Card for the Nation and the States.* (Washington, DC: National Center for Education Statistics, 1993).

In total, 2,446 fourth-grade Michigan public-school students were assessed. The weighted **student** participation rate was 94 percent. This means that the sample of students who took part in the assessment was directly representative of 94 percent of the **eligible** fourth-grade public-school student population in **participating** schools in Michigan (that is, all students from the population represented by the participating schools, minus those students excluded from the assessment).

The **overall** weighted response rate (school rate times student rate) was 84 percent. This means that the sample of students who participated in the assessment was directly representative of 84 percent of the **eligible** fourth-grade public-school student population in Michigan.

Students' Reading Performance

As shown in the following figure, the overall average proficiency of fourth-grade public-school students from Michigan on the NAEP reading scale was 217. This proficiency was about the same as that of students across the nation (216).[6] There also was a tremendous range in student performance. The lowest performing 10 percent of the fourth graders from Michigan had proficiency levels below 173 while the top 10 percent of the fourth graders had proficiency levels above 258.

Fourth-Grade Public-School Students' Average Reading Proficiency

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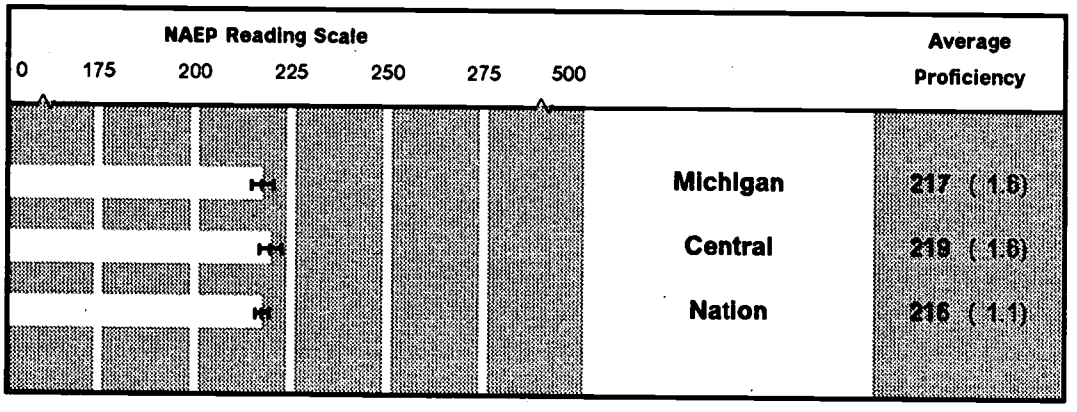

The NAEP reading scale ranges from 0 to 500. The standard errors are presented in parentheses. With about 95 percent confidence, the average reading proficiency for each population of interest is within ± 2 standard errors of the estimated mean (95 percent confidence interval, denoted by ⊢⊣). If the confidence intervals for the populations do not overlap, there is a statistically significant difference between the populations. If they do overlap, the difference may or may not be statistically significant. Statistical tests comparing the two estimates must be conducted that use the standard error of the difference (see Appendix A for details).

[6] Differences reported as significant are statistically different at the 95 percent confidence level. This means that with 95 percent confidence there is a real difference in the average reading proficiency between the two populations of interest. "About the same" means that no statistically significant difference was found at the 95 percent confidence level.

LEVELS OF ACHIEVEMENT

When Congress established the National Assessment Governing Board (NAGB) in 1988 to set policy for NAEP, it charged the board with "identifying appropriate achievement goals for each age and grade in each subject area to be tested under the National Assessment." (Pub. L. 297-100 Section 3403 (a)(5)(B)(ii)).

NAGB developed three achievement levels for each grade -- Basic, Proficient, and Advanced. Performance at the Basic level denotes partial mastery of the knowledge and skills that are fundamental for proficient work at each grade level. The central level, called Proficient, represents solid academic performance at each grade level tested. Students reaching this level demonstrate competency over challenging subject matter and are well prepared for the next level of schooling. Achievement at the Advanced level signifies superior performance at the grade tested. Definitions of the three levels of reading achievement are given below.

BASIC LEVEL (212)	Fourth-grade students performing at the **Basic level** *should demonstrate an understanding of the overall meaning of what they read.* When reading texts appropriate for fourth graders, *they should be able to make relatively obvious connections between the text and their own experiences.*
PROFICIENT LEVEL (243)	Fourth-grade students performing at the **Proficient level** *should be able to demonstrate an overall understanding of the text, providing inferential as well as literal information.* When reading text appropriate to fourth grade, *they should be able to extend the ideas in the text by making inferences, drawing conclusions, and making connections to their own experiences. The connection between the text and what the student infers should be clear.*
ADVANCED LEVEL (275)	Fourth-grade students performing at the **Advanced level** *should be able to generalize about topics in the reading selection and demonstrate an awareness of how authors compose and use literary devices.* When reading text appropriate to fourth grade, they *should be able to judge texts critically and, in general, give thorough answers that indicate careful thought.*

Because the process of setting the levels of reading achievement centered on the descriptions of what students *should* be able to do, it is important to explore whether students *actually met* the expectations for performance at the Basic, Proficient, and Advanced levels. To help in this process, NCES arranged for ETS to apply a modified anchoring procedure to the 1992 reading achievement levels. A committee of reading education experts was assembled to review the questions and assessment results. Using their knowledge of reading and student performance on the individual questions, the committee members were asked to summarize student performance at each achievement level (see Appendix D for more details on the anchoring procedure).

Placing the descriptions of how students performed at each of the levels in the context of the expectations for achievement at each of the levels and cross-checking with the actual question-by-question results yields some interesting findings. In general, the sets of reading skills expected were those observed. However, in some instances, particularly for extended response questions, even Advanced-level students had difficulty providing in-depth answers. In some other instances, because the assessment was developed prior to the achievement level descriptions, particular reading skills were not measured. For more information about student performance, see the full report.

The following figure provides the percentage of students at or above each achievement level, as well as the percentage of students below the Basic level. In Michigan, 59 percent of the fourth graders in public schools were at or above the Basic level, 23 percent were at or above the Proficient level, and 3 percent were at or above the Advanced level. Nationwide, 57 percent of the fourth graders were at or above the Basic level, 24 percent were at or above the Proficient level, and 4 percent were at or above the Advanced level. About the same percentage of students in Michigan as across the nation were at or above the Proficient level.

Levels of Fourth-Grade Public-School Students' Reading Achievement

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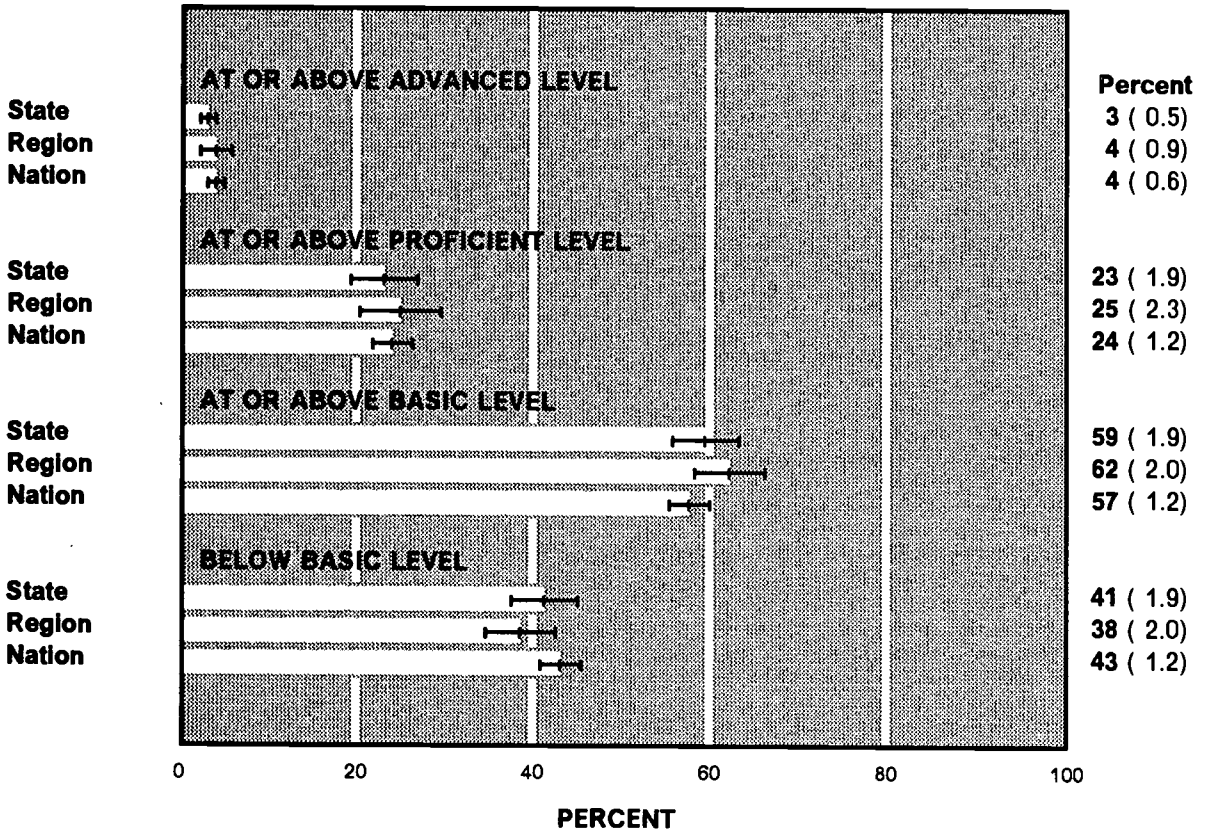

The standard errors are presented in parentheses. With about 95 percent confidence, the average reading proficiency for each population of interest is within ± 2 standard errors of the estimated mean (95 percent confidence interval, denoted by ⊢⊣). If the confidence intervals for the populations do not overlap, there is a statistically significant difference between the populations. If they do overlap, the difference may or may not be statistically significant. Statistical tests comparing the two estimates must be conducted that use the standard error of the difference (see Appendix A for details).

PERFORMANCE ACCORDING TO PURPOSE FOR READING

The 1992 Trial State Assessment Program considered students' performance in situations that involved reading different kinds of materials for different purposes. The fourth-grade reading assessment measured two global purposes for reading -- **reading for literary experience** and **reading to gain information**. Students in Michigan performed about the same as students across the nation in reading for literary experience and to gain information.

Subpopulation Performance

Assessment results repeatedly show differences in achievement for subpopulations of students.[7] The 1992 Trial State Assessment provides additional information about the achievement of important subpopulations by reporting on the performance of various subgroups of the student population defined by race/ethnicity, type of community, parents' education level, and gender.

Race/Ethnicity

White students in Michigan demonstrated higher average reading proficiency than did Black or Hispanic students. In Michigan, about one quarter of the White students (27 percent), relatively few of the Black students (5 percent), and relatively few of the Hispanic students (8 percent) were at or above the Proficient level. Across the nation, about one quarter of the White students (30 percent), relatively few of the Black students (7 percent), and some of the Hispanic students (12 percent) were at or above the Proficient level.

Type of Community

The average reading performance of Michigan students attending schools in advantaged urban areas was higher than that of students attending schools in disadvantaged urban areas, extreme rural areas, or areas classified as "other". About half of the students attending schools in advantaged urban areas (46 percent), relatively few of the students in disadvantaged urban areas (5 percent), about one quarter of the students in extreme rural areas (27 percent), and about one quarter of the students in areas classified as "other" (24 percent) in Michigan were at or above the Proficient level. Across the nation, about half of the students in advantaged urban areas (47 percent), relatively few of the students in disadvantaged urban areas (5 percent), about one quarter of the students in extreme rural areas (24 percent), and about one quarter of the students in areas classified as "other" (24 percent) were at or above the Proficient level.

[7] Ina V.S. Mullis, John A. Dossey, Mary A. Foertsch, Lee R. Jones, and Claudia A. Gentile. *Trends in Academic Progress*. (Washington, DC: National Center for Education Statistics, 1992).

Parents' Education

Students in Michigan who reported that at least one parent graduated from college demonstrated about the same average reading proficiency as did students who reported that at least one parent had some education after high school, but higher proficiency than did students who reported that at least one parent graduated from high school, neither parent graduated from high school, or they did not know their parents' education level. Reading achievement in Michigan was at or above the Proficient level for 31 percent of the students who reported that at least one parent graduated from college, 29 percent of the students who reported that at least one parent had some education after high school, 17 percent of the students who reported that at least one parent graduated from high school, 11 percent of the students who reported that neither parent graduated from high school, and 16 percent of the students who reported that they did not know their parents' education level. Across the nation, these figures were 33 percent of the students who reported that at least one parent graduated from college, 28 percent of the students who reported that at least one parent had some education after high school, 18 percent of the students who reported that at least one parent graduated from high school, 10 percent of the students who reported that neither parent graduated from high school, and 17 percent of the students who reported that they did not know their parents' education level.

Gender

In Michigan, there appears to be no significant difference in the average reading profiency of fourth-grade boys and girls attending public schools. Compared to the national results, girls in Michigan performed about the same as girls across the country; boys in Michigan performed about the same as boys across the country. There was no significant difference between the percentages of males and females in Michigan who attained the Proficient level (24 percent for females and 21 percent for males). The percentage of females in Michigan who attained the Proficient level was about the same as the percentage of females in the nation who attained the Proficient level (24 percent for Michigan and 26 percent for the nation). Similarly, the percentage of males in Michigan who attained the Proficient level was about the same as the percentage of males in the nation who attained the Proficient level (21 percent for Michigan and 21 percent for the nation).

A Context for Understanding Students' Reading Proficiency

Information on the reading performance of students in Michigan can be better understood and used for improving instruction and setting policy when supplemented with contextual information about schools, teachers, and students.

To gather contextual information, the fourth-grade students participating in the 1992 Trial State Assessment, their reading teachers, and the principals or other administrators in their schools were asked to complete questionnaires on policies, instruction, and programs. The student, teacher, and school data help to describe some of the current practices and emphases in reading education, illuminate some of the factors that appear to be related to fourth-grade public-school students' reading proficiency, and provide an educational context for understanding information on student achievement. Highlights of the results for the public-school students in Michigan are as follows:

CURRICULUM COVERAGE AND INSTRUCTIONAL EMPHASIS

- In Michigan, 72 percent of the fourth-grade students had reading teachers who spent at least 60 minutes providing reading instruction each day. By comparison, 28 percent of the students had reading teachers who spent 45 minutes or less providing reading instruction each day.

- In Michigan, relatively few of the fourth-grade students (9 percent) were being taught by teachers who placed heavy emphasis on phonics; about half (49 percent) were being taught by teachers who placed heavy emphasis on the integration of reading and writing; and less than half (41 percent) were being taught by teachers who placed heavy emphasis on the whole language approach.

- In addition, in Michigan, about half of the fourth-grade students (46 percent) were being taught by teachers who placed heavy emphasis on literature-based reading; about half (48 percent) were being taught by teachers who placed heavy emphasis on reading across the content areas; and relatively few (5 percent) were being taught by teachers who placed heavy emphasis on individualized reading programs.

DELIVERY OF READING INSTRUCTION

- About half of the fourth-grade public-school students in Michigan (51 percent) had reading teachers who used both basal and trade books, less than half (37 percent) had reading teachers who primarily used basal readers, and relatively few (8 percent) had reading teachers who primarily used trade books.

- In Michigan, 2 percent of the fourth-grade students had reading teachers who used children's newspapers and/or magazines almost every day; 7 percent of the students had reading teachers who used reading kits almost every day; 3 percent had reading teachers who used computer software for reading instruction almost every day; 35 percent had reading teachers who used a variety of books almost every day; and, finally, 27 percent had teachers who used materials from other subject areas almost every day.

- In Michigan, some of the fourth-grade students (14 percent) had reading teachers who devoted almost all of their instructional time in reading to teaching decoding skills; some of the students (17 percent) had reading teachers who devoted almost all of their instructional time in reading to oral reading; less than half (33 percent) had reading teachers who devoted almost all of their instructional time in reading to teaching vocabulary; about three quarters (71 percent) had reading teachers who devoted almost all of their instructional time in reading to comprehension/interpretation; and finally, about half (50 percent) had teachers who devoted almost all of their instructional time in reading to reading strategies.

EDUCATIONAL BACKGROUND OF TEACHERS

- In Michigan, 56 percent of the students were being taught by reading teachers who reported having at least a master's or education specialist's degree. This compares with 46 percent for students across the nation.
- About three quarters of the students (74 percent) had reading teachers who had the highest level of teaching certification that is recognized by Michigan. This is higher than the figure for the nation, where more than half of the students (57 percent) were taught by reading teachers who were certified at the highest level available in their states.
- In Michigan, 40 percent of the fourth-grade public-school students were being taught reading by teachers who had an undergraduate major in English, reading, and/or language arts. By comparison, 22 percent of the students across the nation had reading teachers with the same major.

HOME FACTORS

- Students in Michigan who had four types of reading materials in the home (newspapers, magazines, more than 25 books, and an encyclopedia) showed a higher reading proficiency than did students with zero to two types of materials. Across the nation, students who had all four types of materials at home showed a higher reading proficiency than did students who had zero to two types.
- In Michigan, 27 percent of the fourth-grade public-school students discussed what they read with friends or family almost every day; 22 percent never or hardly ever discussed what they read. Across the nation, 27 percent discussed what they read with friends or family almost every day and 24 percent never or hardly ever discussed what they read.
- Some of the fourth-grade public-school students in Michigan (18 percent) watched one hour or less of television each day; some (20 percent) watched six hours or more.

Comparisons of Overall Reading Proficiency in Michigan with Other States

The map on the following page provides a method for making appropriate comparisons of the overall reading proficiency in Michigan with that in other states (including the District of Columbia and one territory) that participated in the NAEP 1992 Trial State Assessment Program. The different shadings of the states on the map show whether the average overall proficiency in the other states was statistically different from or not statistically different from that in Michigan ("Target State"). States with a dark-colored shading have a significantly higher average proficiency than does Michigan. States with a light-colored shading have a significantly lower average proficiency than does Michigan. States without shading have an average proficiency that does not differ significantly from that of Michigan. The significance tests are based on a Bonferroni procedure for multiple comparisons that holds the probability of erroneously declaring the means of any two states to be different, when they are not, to no more than five percent.

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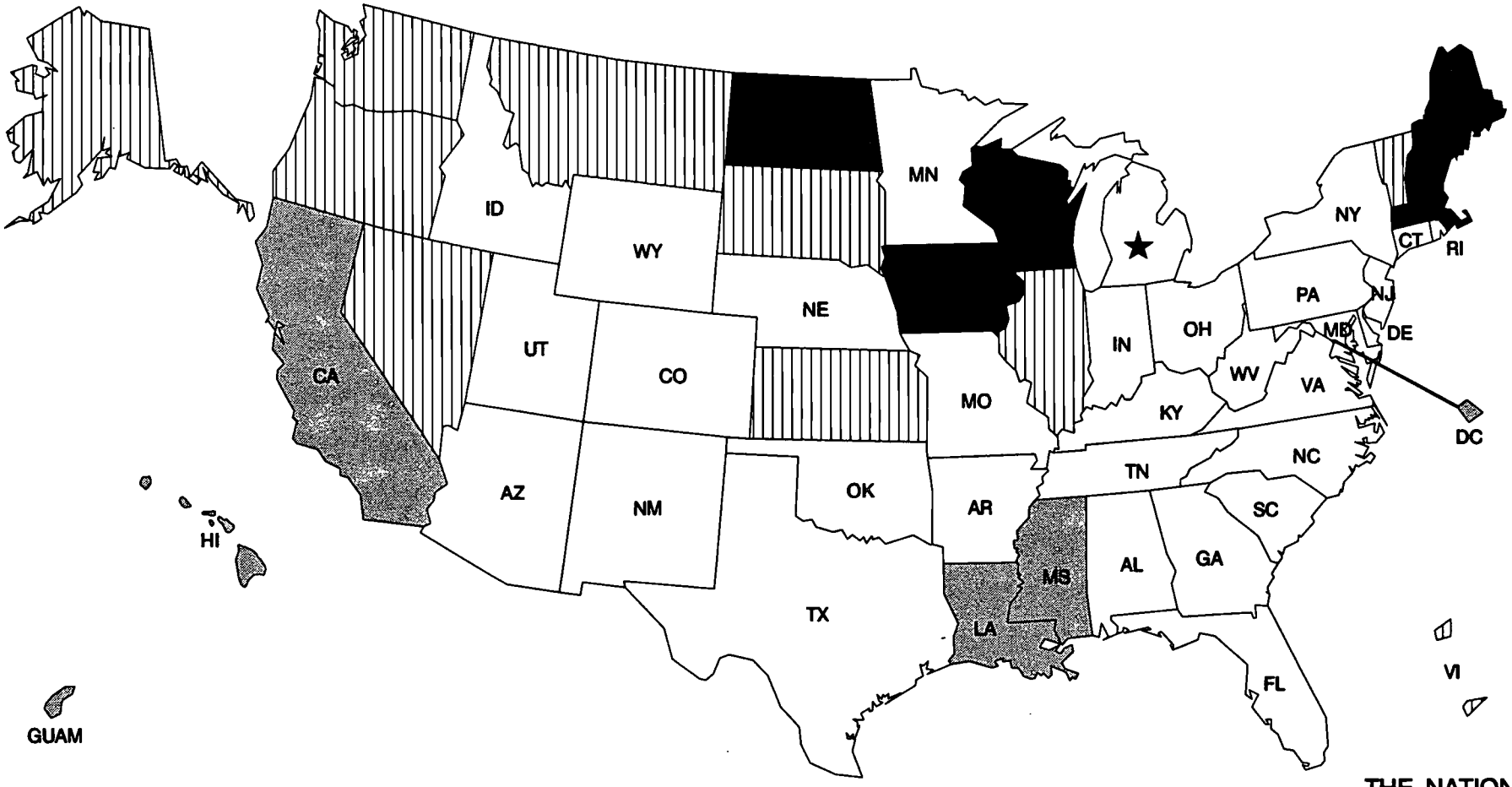
Comparisons of Overall Reading Proficiency at Grade 4

Michigan



- ★ Target state
- State has statistically significantly higher average proficiency than target state
- No statistically significant difference from target state
- State has statistically significantly lower average proficiency than target state
- State did not participate

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OVERVIEW

In 1988, Congress passed new legislation for the National Assessment of Educational Progress (NAEP) that continued its primary mission of providing dependable and comprehensive information about educational progress in the United States. In addition, for the first time in the project's history, the legislation also included a provision authorizing voluntary state-by-state assessments on a trial basis:

> *The National Assessment shall develop a trial mathematics assessment survey instrument for the eighth grade and shall conduct a demonstration of the instrument in 1990 in States which wish to participate, with the purpose of determining whether such an assessment yields valid, reliable State representative data. (Section 406(i)(2)(C)(i) of the General Education Provisions Act, as amended by Pub. L. 100-297 (U.S.C. 1221e-1(i)(2)(c)(i)))*

> *The National Assessment shall conduct a trial mathematics assessment for the fourth and eighth grades in 1992 and, pursuant to subparagraph (6)(D), shall develop a trial reading assessment to be administered in 1992 for the fourth grade in States which wish to participate, with the purpose of determining whether such an assessment yields valid, reliable State representative data. (Section 406(i)(2)(C)(i) of the General Education Provisions Act, as amended by Pub. L. 100-297 (U.S.C. 1221e-1(i)(2)(c)(ii)))*

As a result of the legislation, the 1990 NAEP program included a Trial State Assessment Program in which public-school students in 37 states, the District of Columbia, and two territories were assessed in eighth-grade mathematics.[8] The 1992 NAEP program included an expanded Trial State Assessment Program in fourth-grade reading and fourth- and eighth-grade mathematics, with public-school students assessed in 41 states, the District of Columbia, and two territories.[9] In addition, national assessments in mathematics, reading, writing, and science were conducted concurrently with the Trial State Assessment Program in 1990 and in 1992.

[8] For a summary of the 1990 program, see Ina V.S. Mullis, John A. Dossey, Eugene H. Owen, and Gary W. Phillips. *The State of Mathematics Achievement: NAEP's 1990 Assessment of the Nation and the Trial Assessment of the States.* (Washington, DC: National Center for Education Statistics, 1991).

[9] For a summary of the 1992 assessment of mathematics, see *NAEP 1992 Mathematics Report Card for the Nation and the States.* (Washington, DC: National Center for Education Statistics, 1993).

The 1992 Trial State Assessment Program was conducted in February 1992 with the following 44 participants:

Alabama	**Louisiana**	**Ohio**
Arizona	Maine	**Oklahoma**
Arkansas	**Maryland**	**Pennsylvania**
California	Massachusetts	**Rhode Island**
Colorado	**Michigan**	South Carolina
Connecticut	**Minnesota**	Tennessee
Delaware	Mississippi	**Texas**
District of Columbia	Missouri	Utah
Florida	**Nebraska**	**Virginia**
Georgia	**New Hampshire**	**West Virginia**
Hawaii	**New Jersey**	**Wisconsin**
Idaho	**New Mexico**	**Wyoming**
Indiana	**New York**	
Iowa	**North Carolina**	**Guam**
Kentucky	**North Dakota**	**Virgin Islands***

* The Virgin Islands participated in the testing portion of the 1992 Trial State Assessment Program. However, in accordance with the legislation providing for participants to review and give permission for release of their results, the Virgin Islands chose not to release their results at grade 4 in the reports.

States in regular type did not participate in the 1990 Trial State Assessment. Three states -- Montana, Illinois, and Oregon -- participated in the 1990 Trial State Assessment but not in the 1992 program.

For the 1992 Trial State Assessment in reading, approximately 2,500 students were assessed in each jurisdiction. The samples were carefully designed to represent the fourth-grade public-school populations in the states or territories. Similar to the 1990 program, local school district personnel administered all assessment sessions, and the contractor's staff monitored 50 percent of the sessions as part of the quality assurance program designed to ensure that the sessions were conducted uniformly. The results of the monitoring in 1990 and 1992 indicated a high degree of quality and uniformity across sessions.

The 1992 Trial State and National Assessment programs in reading were based on a framework developed through a national consensus process that was set forth by law and called for "active participation of teachers, curriculum specialists, subject matter specialists, local school administrators, parents, and members of the general public" (Public Law 100-297, Part C, 1988).[10]

[10] *Reading Framework for the 1992 National Assessment of Educational Progress.* (Washington, DC: National Assessment Governing Board, U.S. Department of Education, 1992).

The process of developing the framework was carried out in late 1989 and early 1990 by the Council of Chief State School Officers (CCSSO) under contract from the National Assessment Governing Board (NAGB) which is responsible for formulating policy for NAEP, including developing assessment objectives and test specifications. The framework development process included input from a wide range of people in the fields of reading and assessment, from school teachers and administrators to state coordinators of reading and reading assessment. After thorough discussion and some amendment, the framework was adopted by NAGB in March 1990. An overview of the reading framework is provided in the Procedural Appendix.

The fourth-grade Trial State and National Assessments in reading included eight sections or blocks, each 25 minutes in length. Each block consisted of a passage and a combination of constructed-response and multiple-choice questions. Passages selected for the assessment were drawn from authentic texts used by students in real, everyday reading. Whole stories, articles, or sections of textbooks were used, rather than excerpts or abridgements. The type of question -- constructed-response or multiple-choice -- was determined by the nature of the task. In addition, the constructed-response questions were of two types: *regular constructed-response* questions required students to respond to a question in a few words or a few sentences while *extended constructed-response* questions required students to respond to a question in a paragraph or more.

This Report

This is a computer-generated report that describes the reading performance of fourth-grade public-school students in Michigan, in the Central region, and across the nation. A separate report describes additional fourth-grade reading assessment results for the nation and the states, as well as the national results for grades 8 and 12.[11] This report consists of three sections:

- This Overview provides background information about the Trial State Assessment and a profile of the fourth-grade public-school students in Michigan.
- Part One describes the reading performance of the fourth-grade public-school students in Michigan, the Central region, and the nation.
- Part Two relates fourth-grade students' reading performance to contextual information about the reading policies, instruction, and home support for reading in Michigan, the Central region, and the nation.

[11] See *NAEP 1992 Reading Report Card for the Nation and the States.* (Washington, DC: National Center for Education Statistics, 1993).

In this report, results are provided for groups of students defined by shared characteristics -- race/ethnicity, type of community, parents' education level, and gender. Definitions of the subpopulations referred to in this report are presented below. The results for Michigan are based on the representative sample of public-school students who participated in the 1992 Trial State Assessment Program. The results for the nation and the region of the country are based on the nationally and regionally representative samples of public-school students who were assessed in January through March as part of the national NAEP program. Using the regional and national results from the 1992 national NAEP program is necessary because of the voluntary nature of the Trial State Assessment Program. Since not every state participated in the program, the aggregated data across states did not necessarily provide representative national or regional results. Specific details on the samples and analysis procedures used can be found in the *Technical Report of the 1992 NAEP Trial State Assessment Program in Reading.*[12]

RACE/ETHNICITY

Results are presented for students of different racial/ethnic groups based on the students' self-identification of their race/ethnicity according to the following mutually exclusive categories: White, Black, Hispanic, Asian (including Pacific Islander), and American Indian (including Alaskan Native). Based on criteria described in the Procedural Appendix, there must be at least 62 students in a particular subpopulation in order for the results for that subpopulation to be considered reliable. Thus, results for racial/ethnic groups with fewer than 62 students are not reported. However, the data for all students, regardless of whether their racial/ethnic group was reported separately, were included in computing overall results for Michigan.

TYPE OF COMMUNITY

Results are provided for four mutually exclusive community types -- advantaged urban, disadvantaged urban, extreme rural, and other -- as defined below:

> *Advantaged Urban:* Students in this group live in metropolitan statistical areas and attend schools where, according to their schools, a high proportion of the students' parents are in professional or managerial positions.
>
> *Disadvantaged Urban:* Students in this group live in metropolitan statistical areas and attend schools where, according to their schools, a high proportion of the students' parents are on welfare or are not regularly employed.

[12] *Technical Report of the NAEP 1992 Trial State Assessment Program in Reading.* (Washington, DC: National Center for Education Statistics, 1993).

Extreme Rural: Students in this group live outside metropolitan statistical areas, live in areas with a population below 10,000, and attend schools where, according to their schools, many of the students' parents are farmers or farm workers.

Other: Students in this category attend schools in areas other than those defined as advantaged urban, disadvantaged urban, or extreme rural.

Indices were developed such that approximately 10 percent of the most extreme advantaged urban, disadvantaged urban, and rural schools sampled in the national assessment were classified into these three categories. The remaining 70 percent of the schools were classified into the "other" category. The reporting of results by each type of community was also subject to a minimum student sample size of 62.

PARENTS' EDUCATION LEVEL

Students were asked to indicate the extent of schooling for each of their parents -- did not finish high school, graduated from high school, some education after high school, or graduated from college. The response indicating the higher level of education was selected for reporting. Reporting of results by parents' education level was also subject to a minimum student sample size of 62. Note that a substantial percentage of fourth-grade students did not know their parents' education level.

GENDER

Results are reported separately for males and females.

REGION

The United States has been divided into four regions for purposes of this report: Northeast, Southeast, Central, and West. States included in each region are shown in Figure 1. All 50 states and the District of Columbia are listed, with the participants in the Trial State Assessment highlighted in boldface type. Territories were not assigned to a region. Further, the part of Virginia that is included in the Washington, DC, metropolitan statistical area is included in the Northeast region; the remainder of the state is included in the Southeast region. Because most of the Virginia students are in the Southeast region, regional comparisons for Virginia are to the Southeast.

The regional results are based on a separate sample from that used to report the state results. Regional results are based on national assessment samples, not on aggregated Trial State Assessment samples.

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FIGURE 1 | **Regions of the Country**

NORTHEAST	SOUTHEAST	CENTRAL	WEST
Connecticut	Alabama	Illinois	Alaska
Delaware	Arkansas	Indiana	Arizona
District of Columbia	Florida	Iowa	California
Maine	Georgia	Kansas	Colorado
Maryland	Kentucky	Michigan	Hawaii
Massachusetts	Louisiana	Minnesota	Idaho
New Hampshire	Mississippi	Missouri	Montana
New Jersey	North Carolina	Nebraska	Nevada
New York	South Carolina	North Dakota	New Mexico
Pennsylvania	Tennessee	Ohio	Oklahoma
Rhode Island	Virginia	South Dakota	Oregon
Vermont	West Virginia	Wisconsin	Texas
Virginia			Utah
			Washington
			Wyoming

Guidelines for Analysis

This report describes reading proficiency for fourth graders attending public schools and compares the results for various groups of students within that population -- for example, those who have certain demographic characteristics or who responded to a specific background question in a particular way. The report examines the results for individual groups and individual background questions. It does not include an analysis of the relationships among combinations of these subpopulations or background questions.

Because the proportions of students in these subpopulations and their average proficiencies are based on samples -- rather than the entire population of fourth graders in public schools in a state or territory -- the numbers reported are necessarily *estimates*. As such, they are subject to a measure of uncertainty, reflected in the *standard error* of the estimate. When the proportions or average proficiencies of certain groups are compared, it is essential to take the standard error into account, rather than rely solely on observed similarities or differences. Therefore, the comparisons discussed in this report are based on *statistical tests* that consider both the magnitude of the difference between the means or proportions and the standard errors of those statistics.

The statistical tests determine whether the evidence -- based on the data from the groups in the *sample* -- is strong enough to conclude that the means or proportions are really different for those groups in the *population*. If the evidence is strong (i.e., the difference is *statistically significant*), the report describes the group means or proportions as being different (e.g., one group performed *higher than* or *lower than* another group) -- regardless of whether the sample means or sample proportions appear to be about the same or not. If the evidence is not sufficiently strong (i.e., the difference is not statistically significant), the means or proportions are described as being *about the same* -- again, regardless of whether the sample means or sample proportions appear to be about the same or widely discrepant. The reader is cautioned to rely on the results of the statistical tests -- rather than on the apparent magnitude of the difference between sample means or proportions -- to determine whether those sample differences are likely to represent actual differences between the groups in the population. The statistical tests and Bonferroni procedure, which is used when more than two groups are being compared, are discussed in greater detail in the Procedural Appendix.

In addition, some of the percentages reported in the text of the report are given quantitative descriptions (e.g., some, about half, almost all, etc.). The descriptive phrases used and the rules used to select them are described in the Procedural Appendix.

Finally, in several places in this report, results (mean proficiencies and proportions) are reported in the text for combined groups of students. For example, in the text, the percentage of students in the combined group where teachers reported spending 60 minutes or 90 minutes or more on reading instruction on a typical day is given and compared to the group where teachers reported spending 45 minutes or less. However, the table that accompanies that text reports percentages and proficiencies separately for the three groups (45 minutes or less, 60 minutes, and 90 minutes or more). The combined group percentages reported in the text and used in all statistical tests are based on *unrounded* estimates (i.e., estimates calculated to several decimal places) of the percentages in each group. The percentages shown in the tables are *rounded* to integers. Thus, percentages may not always add up to 100 percent due to rounding. Also, the percentage for a combined group (reported in the text) may differ slightly from the sum of the separate percentages (presented in the tables) for each of the groups that were combined. Therefore, if statistical tests were to be conducted based on the rounded numbers in the tables, the results might not be consonant with the results of the statistical tests that are reported in the text (based on unrounded numbers.)

Profile of Michigan

FOURTH-GRADE SCHOOL AND STUDENT CHARACTERISTICS

Table 1 provides a profile of the demographic characteristics of the fourth-grade public-school students in Michigan, the Central region, and the nation. This profile is based on data collected from the students and schools participating in the 1992 Trial State and National Assessments. As described earlier, the state data and the regional and national data are drawn from separate samples.

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TABLE 1

Profile of Fourth-Grade Public-School Students in Michigan, the Central Region, and the Nation

DEMOGRAPHIC SUBGROUPS	Michigan Percentage	Central Percentage	Nation Percentage
Race/Ethnicity			
White	74 (1.6)	79 (1.5)	69 (0.5)
Black	13 (1.6)	11 (1.3)	17 (0.4)
Hispanic	8 (0.8)	7 (1.0)	10 (0.3)
Asian	2 (0.3)	1 (0.2)	2 (0.3)
American Indian	2 (0.3)	2 (0.4)	2 (0.3)
Type of Community			
Advantaged urban	10 (3.0)	3 (2.3)	7 (2.1)
Disadvantaged urban	14 (3.7)	9 (2.2)	10 (1.3)
Extreme rural	11 (3.6)	15 (3.4)	13 (2.4)
Other	65 (5.2)	73 (4.8)	70 (3.2)
Parents' Education			
Graduated college	37 (1.8)	38 (2.1)	37 (1.1)
Some education after high school	10 (0.7)	13 (1.5)	9 (0.6)
Graduated high school	14 (0.8)	13 (1.0)	13 (0.6)
Did not finish high school	5 (0.5)	3 (0.7)	4 (0.4)
I don't know	34 (1.4)	34 (2.1)	37 (1.1)
Gender			
Male	50 (1.1)	54 (1.1)	51 (0.7)
Female	50 (1.1)	46 (1.1)	49 (0.7)

The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within ± 2 standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). The percentages for Race/Ethnicity may not add to 100 percent because some students categorized themselves as "Other."

SCHOOLS AND STUDENTS ASSESSED

Table 2 summarizes participation data for Michigan schools and students sampled for the 1992 Trial State Assessment.[13] In Michigan, 100 public schools participated in the fourth-grade reading assessment. These numbers include participating substitute schools that were selected to replace some of the nonparticipating schools from the original sample. The weighted **school** participation rate was 90 percent, which means that the fourth-grade students in this sample of schools were directly representative of 90 percent of **all** the fourth-grade public-school students in Michigan.

[13] For a detailed discussion of the NCES guidelines for sample participation, see *School and Student Participation Rates for the Reading Assessment.* (Washington, DC: National Center for Education Statistics, 1993); or see Appendix B of the *Technical Report of the NAEP 1992 Trial State Assessment Program in Reading.* (Washington, DC: National Center for Education Statistics, 1993).

In each school, a random sample of students was selected to participate in the assessment. As estimated by the sample, 1 percent of the fourth-grade public-school population was classified as Limited English Proficient (LEP), while 6 percent in fourth grade had an Individualized Education Plan (IEP). An IEP is a plan, written for a student who has been determined to be eligible for special education, that typically sets forth goals and objectives for the student and describes a program of activities and/or related services necessary to achieve the goals and objectives. Handicapped or disabled students may be categorized as IEP.

Schools were permitted to exclude certain students from the assessment, provided that certain criteria were met. To be excluded, a student had to be categorized as Limited English Proficient or had to have an Individualized Education Plan *and* (in either case) be judged incapable of participating in the assessment. The intent was to assess all selected students; therefore, all selected students who were capable of participating in the assessment should have been assessed. However, schools were allowed to exclude those students who, in the judgment of school staff, could not meaningfully participate. The NAEP guidelines for exclusion are intended to assure uniformity of exclusion criteria from school to school. Note that some LEP and IEP students were deemed eligible to participate and not excluded from the assessment. The students in Michigan who were excluded from the assessment because they were categorized as LEP or had an IEP represented 5 percent of the population in grade four.

In total, 2,446 fourth-grade Michigan public-school students were assessed. The weighted **student** participation rate was 94 percent. This means that the sample of students who took part in the assessment was directly representative of 94 percent of the **eligible** fourth-grade public-school student population in **participating** schools in Michigan (that is, all students from the population represented by the participating schools, minus those students excluded from the assessment).

The **overall** weighted response rate (school rate times student rate) was 84 percent. This means that the sample of students who participated in the assessment was directly representative of 84 percent of the **eligible** fourth-grade public-school population in Michigan.

In the analysis of student data and reporting of results, nonresponse weighting adjustments have been made at both the school and student level, with the aim of making the sample of participating students as representative as possible of the entire eligible fourth-grade public-school population. For details of the nonresponse weighting adjustment procedures, see the *Technical Report of the NAEP 1992 Trial State Assessment Program in Reading*.

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TABLE 2

Profile of the Fourth-Grade Population Assessed in Michigan

PUBLIC SCHOOL PARTICIPATION	
Weighted school participation rate before substitution	83%
Weighted school participation rate after substitution	90%
Number of schools originally sampled	116
Number of schools not eligible	3
Number of schools in original sample participating	92
Number of substitute schools provided	17
Number of substitute schools participating	8
Total number of participating schools	100
PUBLIC-SCHOOL STUDENT PARTICIPATION	
Weighted student participation rate after makeups	94%
Number of students selected to participate in the assessment	2,848
Number of students withdrawn from the assessment	97
Percentage of students who were of Limited English Proficiency	1%
Percentage of students excluded from the assessment due to Limited English Proficiency	1%
Percentage of students who had an Individualized Education Plan	6%
Percentage of students excluded from the assessment due to Individualized Education Plan Status	4%
Number of students to be assessed	2,615
Number of students assessed	2,446
Overall weighted response rate	84%

In one or more schools in Michigan an assessment was conducted, but either the wrong materials were sent to the school(s) or the materials were lost in shipping via the U.S. Postal Service. The school(s) are included in the counts of participating schools in Michigan, both before and after substitution. However, in the weighted results, the school(s) are treated in the same manner as a non-participating school because no student responses were available for analysis and reporting. The students in these school(s) are included in the counts of students in the table. However, Michigan's estimates will not be based on these student responses.

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PART ONE

How Proficient in Reading are Fourth-Grade Students in Michigan Public Schools?

Reading involves the interaction between a reader, a text, and a situation.[14] Thus, students' reading comprehension is influenced by the type of material read and the specific purposes for reading. The 1992 Trial State Assessment Program considered students' performance in situations that involved reading different kinds of materials for different purposes. The fourth-grade reading assessment measured two global purposes for reading -- **reading for literary experience** and **reading to gain information**.[15] Reading for literary experience usually involves the reading of novels, short stories, plays, and essays. In these reading situations, the reader can determine how the author explores experiences through the text and can consider the interplay among events, emotions, and possibilities. Reading to gain information usually involves the reading of articles in magazines and newspapers, chapters in a textbook, entries in encyclopedias and catalogs, and entire books on particular topics. These reading situations call for different orientations to text from those in reading for literary experience because readers are specifically focused on acquiring information. Students' performance on each of the two purposes for reading was summarized on separate NAEP reading scales (one for each purpose), which range from 0 to 500. In addition, an overall reading scale, reflecting combined performance in the two purposes for reading, was also developed. The overall reading scale also ranges from 0 to 500.

[14] Judith A. Langer, Arthur N. Applebee, Ina V.S. Mullis, and Mary A. Foertsch. *Learning to Read in Our Nation's Schools.* (Princeton, NJ: National Assessment of Educational Progress, Educational Testing Service, 1990).

[15] The eighth- and twelfth-grade national NAEP reading assessments also measured a third purpose for reading -- reading to perform a task.

This part of the report contains two chapters that describe the reading proficiency of fourth-grade public-school students in Michigan. Chapter 1 compares the overall reading performance of the students in Michigan to students in the Central region and the nation. It also presents the students' average proficiency for the two purposes for reading. Chapter 2 summarizes the students' overall reading performance, as well as performance for each of the two reading purposes, for subpopulations defined by race/ethnicity, type of community, parents' education level, and gender.

CHAPTER 1

Students' Reading Performance

Reading achievement is central to one of the goals adopted by the president and the governors following the historic Charlottesville conference -- *American students will leave grades four, eight, and twelve having demonstrated competency in challenging subject matter including English, mathematics, science, history, and geography; and every school in America will ensure that all students learn to use their minds well, so they may be prepared for responsible citizenship, further learning, and productive employment in our modern economy.*[16] Concern about attaining the goal and, more importantly, about the reading abilities of our nation's students has increased recently because it appears that many students of all ages have difficulty reading thoughtfully.[17]

Reading for meaning involves a dynamic, complex interaction between and among the reader, the text, and the context. Readers, for example, bring to the process their prior knowledge about the topic, their reasons for reading it, their individual reading skills and strategies, and their understanding of differences in text structures.

The texts used in the reading assessment are representative of common reading demands. Students in grade 4 are asked to respond to literary and informational texts which differ in structure, organization, and features. Literary texts include short stories, poems, and plays that engage the reader in a variety of ways, not the least of which is reading for fun. Informational texts include selections from textbooks, magazines, encyclopedias, and other written sources whose purpose is to increase the reader's knowledge.

[16] *AMERICA 2000: An Education Strategy* (Washington, DC: U.S. Department of Education, 1991).

[17] Ina V.S. Mullis, John A. Dossey, Mary A. Foertsch, Lee R. Jones, and Claudia A. Gentile. *Trends in Academic Progress.* (Washington, DC: National Center for Education Statistics, 1992); Judith A. Langer, Arthur N. Applebee, Ina V.S. Mullis, and Mary A. Foertsch. *Learning to Read in Our Nation's Schools.* (Princeton, NJ: National Assessment of Educational Progress, Educational Testing Service, 1990); Richard C. Anderson, Elfrieda H. Hiebert, Judith A. Scott, Ian A. Wilkinson. *Becoming a Nation of Readers.* (Washington, DC: National Institute of Education, 1985).

The context of the reading situation includes the purposes for reading that the reader might use in building a meaning of the text. For example, in reading for literary experience, students may want to see how the author explores or uncovers experiences, or they may be looking for vicarious experience through the story's characters. On the other hand, the student's purpose in reading informational texts may be to learn about a topic (such as the Civil War or the oceans) or to search for specific information.

The assessment asks students to build, extend, and examine text meaning from four stances or orientations:

Initial Understanding — Students are asked to provide the overall or general meaning of the selection. This includes summaries, main points, or themes.

Developing an Interpretation — Students are asked to extend the ideas in the text by making inferences and connections. This includes making connections between cause and effect, analyzing the motives of characters, and drawing conclusions.

Personal Response — Students are asked to make explicit connections between the ideas in the text and their own background knowledge and experiences. This includes comparing story characters with themselves or people they know, for example, or indicating whether they found a passage useful or interesting.

Critical Stance — Students are asked to consider how the author crafted a text. This includes identifying stylistic devices such as mood and tone.

These stances are not considered hierarchical or completely independent of each other, but are iterative. They provide a frame for generating questions and considering student performance at all levels. All students at all levels should be able to respond to reading selections from all of these orientations. What varies with students' developmental and achievement levels is the amount of prompting or support needed for response, the complexity of the texts to which they can respond, and the sophistication of their answers.

As shown in Figure 2, the overall average proficiency of fourth-grade public-school students from Michigan on the NAEP reading scale was 217. This proficiency was about the same as that of students across the nation (216).[18] There also was a tremendous range in student performance as shown by the percentiles of the distribution of reading proficiency in Michigan presented in Table 3. The lowest performing 10 percent of the fourth graders from Michigan had proficiency levels below 173 while the top 10 percent had proficiency levels above 258.

[18] Differences reported as significant are statistically different at the 95 percent confidence level. This means that with 95 percent confidence there is a real difference in the average reading proficiency between the two populations of interest. "About the same" means that no statistically significant difference was found at the 95 percent confidence level.

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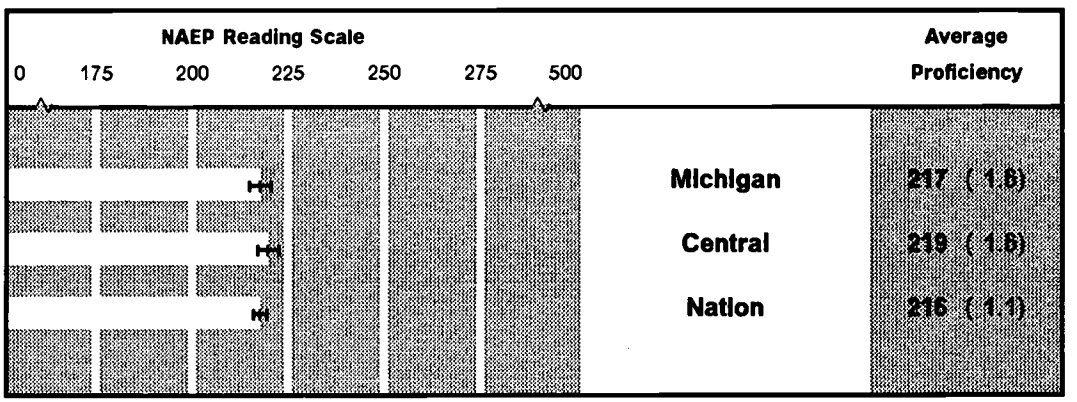
FIGURE 2 | **Fourth-Grade Public-School Students' Average Reading Proficiency**



The NAEP reading scale ranges from 0 to 500. The standard errors are presented in parentheses. With about 95 percent confidence, the average reading proficiency for each population of interest is within ± 2 standard errors of the estimated mean (95 percent confidence interval, denoted by ⊢⊣). If the confidence intervals for the populations do not overlap, there is a statistically significant difference between the populations. If they do overlap, the difference may or may not be statistically significant. Statistical tests comparing the two estimates must be conducted that use the standard error of the difference (see Appendix A for details).

TABLE 3 | **Percentiles of Reading Proficiency for Fourth-Grade Public-School Students**

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	5th Percentile	10th Percentile	25th Percentile	50th Percentile	75th Percentile	90th Percentile	95th Percentile
Michigan	159 (2.0)	173 (2.9)	195 (1.6)	220 (1.3)	241 (1.8)	258 (1.6)	268 (2.4)
Central	157 (4.4)	172 (3.9)	197 (2.4)	222 (2.2)	243 (2.6)	262 (3.5)	272 (2.8)
Nation	152 (2.0)	168 (1.7)	193 (1.1)	218 (1.4)	241 (1.4)	261 (1.9)	272 (1.6)

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within ± 2 standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details).

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LEVELS OF READING ACHIEVEMENT

Average proficiency on the NAEP scale provides an overall depiction of students' reading achievement; however, by itself, it does not describe what students know and are able to do, nor does it evaluate student performance against a standard. This report next presents a set of results based on applying the National Assessment Governing Board's standards to student performance on the reading scale.

When Congress established the National Assessment Governing Board (NAGB) in 1988 to set policy for NAEP, it charged the board with "identifying appropriate achievement goals for each age and grade in each subject area to be tested under the National Assessment." (Pub.L. 297-100, Section 3403 (a)(5)(B)(ii)). To carry out this responsibility, NAGB contracted with American College Testing (ACT) to undertake advisory and analytic functions that could assist the Board in forming its conclusions as to appropriate achievement levels to be used for evaluating the 1992 reading assessment results. Achievement levels are mappings of collective judgments about how students *should* perform onto the achievement scale.[19] Boundary points were developed for three achievement levels for each grade -- Basic, Proficient, and Advanced. Performance at the Basic level denotes partial mastery of the knowledge and skills that are fundamental for proficient work at the fourth-grade level. The central level, called Proficient, represents solid academic performance at the fourth-grade level. Students reaching this level demonstrate competency over challenging subject matter and are well prepared for the next level of schooling. Achievement at the Advanced level signifies superior performance in the fourth grade.

This report follows NAGB's policy that achievement levels should be the primary and initial method of presenting the results of the 1992 Trial State Assessment. In this report, these achievement levels are applied to the 1992 data, showing the proportions of students that achieved the three achievement levels.

Definitions of the three levels of reading achievement are given in Figure 3. Examples of items at the achievement levels are provided. The reading passage which accompanies these items can be found in Appendix B. It should be noted that constructed-response items occur at all levels of reading achievement.

[19] Appendix C briefly describes the process of gathering expert judgments about Basic, Proficient, and Advanced performance -- as defined by NAGB policy -- on each reading item, combining the various judgments on the various items and mapping them onto the scale, and setting the scale score cutpoints for reporting purposes based on these levels.

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FIGURE 3 | Levels of Reading Achievement at Grade 4

The following achievement-level descriptions focus on the interaction of the reader, the text, and the context. They provide some specific examples of reading behaviors that should be familiar to most readers of this document. The specific examples are not inclusive; their purpose is to help clarify and differentiate what readers performing at each achievement level should be able to do. While a number of other reading achievement indicators exist at every level, space and efficiency preclude an exhaustive listing. It should also be noted that the achievement levels are cumulative from Basic to Proficient to Advanced. One level builds on the previous levels such that knowledge at the Proficient level presumes mastery of the Basic level, and knowledge at the Advanced level presumes mastery at both the Basic and Proficient levels.

BASIC LEVEL (212)	Fourth-grade students performing at the **Basic level** *should demonstrate an understanding of the overall meaning of what they read.* When reading texts appropriate for fourth graders, *they should be able to make relatively obvious connections between the text and their own experiences.*

Specifically, when reading **literary text**, they should be able to tell what the story is generally about -- providing details to support their understanding -- and be able to connect aspects of the stories to their own experiences.

When reading **informational text**, Basic-level fourth graders should be able to tell what the selection is generally about or identify the purpose for reading it; provide details to support their understanding; and connect ideas from the text to their background knowledge and experiences.

PROFICIENT LEVEL (243)	Fourth-grade students performing at the **Proficient level** *should be able to demonstrate an overall understanding of the text, providing inferential as well as literal information.* When reading text appropriate to fourth grade, *they should be able to extend the ideas in the text by making inferences, drawing conclusions, and making connections to their own experiences. The connection between the text and what the student infers should be clear.*

Specifically, when reading **literary text**, Proficient-level fourth graders should be able to summarize the story, draw conclusions about the characters or plot, and recognize relationships such as cause and effect.

When reading **informational text**, Proficient-level students should be able to summarize the information and identify the author's intent or purpose. They should be able to draw reasonable conclusions from the text, recognize relationships such as cause and effect or similarities and differences, and identify the meaning of the selection's key concepts.

ADVANCED LEVEL (275)	Fourth-grade students performing at the **Advanced level** *should be able to generalize about topics in the reading selection and demonstrate an awareness of how authors compose and use literary devices.* When reading text appropriate to fourth grade, they *should be able to judge texts critically and, in general, give thorough answers that indicate careful thought.*

Specifically, when reading **literary text**, Advanced-level students should be able to make generalizations about the point of the story and extend its meaning by integrating personal and other reading experiences with the ideas suggested by the text. They should be able to identify literary devices such as figurative language.

When reading **informational text**, Advanced-level fourth graders should be able to explain the author's intent by using supporting material from the text. They should be able to make critical judgments of the text (including its form and content) and explain their judgments clearly.

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FIGURE 3 (continued) | **Levels of Reading Achievement at Grade 4**

The three items that follow were selected to exemplify each of the three achievement levels at grade 4. These items are all based on the story "Sybil Sounds the Alarm," which is shown in its entirety in Appendix B. This is an historical narrative demonstrating the purpose "reading for literary experience." For the multiple-choice items, the correct answer is marked with an asterisk. For the short constructed-response item, the scoring guide is provided. Also shown is the percent correct (conditional p-value) for the students performing within the interval of the indicated level.

BASIC LEVEL Example Item	Percent Correct for Basic Interval	
	Nation	76 (2.4)

Sybil's father thought that she
A. was obedient but forgetful
*B. was courageous and a good rider
C. could lead the troops against the British
D. could easily become angry

PROFICIENT LEVEL Example Item	Percent Correct for Proficient Interval	
	Nation	90 (3.0)

The information about the statue and stamp helps to show that
*A. people today recognize and respect Sybil's bravery
B. people were surprised that George Washington honored her
C. the author included minor details
D. heroes are honored more now than they were then

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FIGURE 3 (continued) | **Levels of Reading Achievement at Grade 4**

ADVANCED LEVEL Example Item	Percent Correct for Advanced Interval	
	Nation	84 (5.5)

How does the author show the excitement and danger of Sybil's ride?

_____

_____

_____

_____

_____

Acceptable

Acceptable answers indicate at least *one* of the following:

- that she showed how concerned Sybil's parents were about letting Sybil ride;
- told how Sybil felt during the ride and immediately afterward;
- told how dangerous the ride was.

For example:

- By letting you know there might be soldiers waiting to stop her;
- By using special words to make it feel dangerous;
- By using details like her mouth was dry with fear;
- The way she described how she acted and how she looked;
- There's a battle going on near her, and she had to ride off the trail because red coats would stop her at any cost.

Unacceptable

For example:

- By saying she was riding a horse.

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DESCRIBING FOURTH-GRADE STUDENTS' PERFORMANCE AT THE ACHIEVEMENT LEVELS

Because the process of setting the levels of reading achievement centered on the descriptions of what students *should* be able to do, it is important to explore whether students *actually met* the expectations for performance at the Basic, Proficient, and Advanced levels. To help in this process, NCES arranged for ETS to apply a modified anchoring procedure to the 1992 reading achievement levels. A committee of reading education experts was assembled to review the questions and assessment results. Using their knowledge of reading and student performance on the individual questions, the committee members were asked to summarize student performance at each achievement level (see Appendix D for more details on the anchoring procedure).

Placing the descriptions of how students performed at each of the levels in the context of the expectations for achievement at each of the levels and cross-checking with the actual question-by-question results yields some interesting findings. In general, the sets of reading skills expected were those observed. However, in some instances, particularly for extended response questions, even Advanced-level students had difficulty providing in-depth answers. In some other instances, because the assessment was developed prior to the achievement level descriptions, particular reading skills were not measured.

In the description of students' performance beginning on the following page, each of the three achievement levels is discussed in turn -- Basic, Proficient, then Advanced. For each of the three levels, the operational definition is presented (reproduced from Figure 3) followed in turn by a description of assessment performance at that achievement level which draws on the anchoring results. These descriptions are intended to be cumulative from Basic-level performance through Advanced. Therefore, demonstrated ability at the Proficient level presumes Basic-level performance, and Advanced performance presumes Proficient, as well as Basic abilities.

BASIC LEVEL (212)	Fourth-grade students performing at the **Basic level** *should demonstrate an understanding of the overall meaning of what they read.* When reading texts appropriate for fourth graders, *they should be able to make relatively obvious connections between the text and their own experiences.*

Specifically, when reading **literary text**, they should be able to tell what the story is generally about -- providing details to support their understanding -- and be able to connect aspects of the stories to their own experiences.

When reading **informational text**, Basic-level fourth graders should be able to tell what the selection is generally about or identify the purpose for reading it; provide details to support their understanding; and connect ideas from the text to their background knowledge and experiences.

Fourth-grade students at the **Basic level** in the 1992 NAEP reading assessment were able to read uncomplicated narratives with understanding. The literary texts at this level included fables and realistic fiction about familiar topics. In addition, they were able to gain information from high-interest informative texts that were structured as narratives and dealt with relatively familiar topics, such as animals and sports.

When reading *literary text*, Basic-level students demonstrated a general understanding of the stories by identifying an obvious theme or message. They answered questions about specific parts of the stories and provided details to support their understanding of characters' feelings or actions. Fourth graders at the Basic level had considerable success in answering questions about the traits and functions of characters. For example, in the nation, 76 percent of the students within the Basic-level interval correctly answered the item about Sybil's father. In addition, connections to their own experiences tended to involve aspects of characters. They could relate to the feelings of familiar characters.

When reading *informational text*, Basic-level fourth graders were able to search for and locate explicit information in order to provide a summarization of part of the text. They were able to identify situations described in text and build simple inferences based on specific details. Although fourth-grade students were not asked directly to identify the purpose for reading an informational text, they were able to construct their own simple questions related to material they had read. They were only partially successful at making connections to background knowledge or experiences when reading to gain information.

PROFICIENT LEVEL (243)	Fourth-grade students performing at the **Proficient level** *should be able to demonstrate an overall understanding of the text, providing inferential as well as literal information.* When reading text appropriate to fourth grade, *they should be able to extend the ideas in the text by making inferences, drawing conclusions, and making connections to their own experiences. The connection between the text and what the student infers should be clear.*

Specifically, when reading **literary text**, Proficient-level fourth graders should be able to summarize the story, draw conclusions about the characters or plot, and recognize relationships such as cause and effect.

When reading **informational text**, Proficient-level students should be able to summarize the information and identify the author's intent or purpose. They should be able to draw reasonable conclusions from the text, recognize relationships such as cause and effect or similarities and differences, and identify the meaning of the selection's key concepts.

Fourth-grade students at the **Proficient level** were able to understand and extend the meaning of more difficult, unfamiliar literary pieces -- those in culturally different or historical settings. They were able also to gain information, interpret meaning, and connect to background experiences when reading informative text that contained narrative elements and direct quotes.

When reading *literary text*, Proficient-level fourth graders demonstrated an overall understanding by constructing responses to a story as a whole, as well as considering subtleties in aspects of stories. However, they were unable to provide an adequate story summary when asked to describe the major events in an historical fiction. Building on the skills demonstrated at the Basic level related to identifying and interpreting characters' actions and feelings, Proficient-level students were able to draw conclusions about characters' actions and recognize multiple character perspectives. In addition, they could recognize obvious cause-and-effect relationships that were related to story events. Fourth-grade students at this level demonstrated an ability to connect information in the story to the author's purpose. For the example item, in the nation, 90 percent of the students within the Proficient-level interval were able to identify the significance of the information about the statue and the stamp in recognizing Sybil's bravery.

When reading *informational text*, Proficient-level fourth graders were able to identify major ideas and make straightforward inferences that were connected clearly to the text. They were able to recognize an author's basic organizational pattern and general purpose. They could draw conclusions about key concepts and generalize across parts of the text. However, when asked to describe cause-and-effect relationships requiring a thoughtful consideration of implicit information, they were only partially successful. Their responses provided evidence that they could search for, locate, prioritize, and apply relevant information. Also, they could relate information from the selection to their own background experience and to inferences that were provided for them.

ADVANCED LEVEL (275)	Fourth-grade students performing at the **Advanced level** *should be able to generalize about topics in the reading selection and demonstrate an awareness of how authors compose and use literary devices.* When reading text appropriate to fourth grade, they *should be able to judge texts critically and, in general, give thorough answers that indicate careful thought.*

Specifically, when reading **literary text**, Advanced-level students should be able to make generalizations about the point of the story and extend its meaning by integrating personal and other reading experiences with the ideas suggested by the text. They should be able to identify literary devices such as figurative language.

When reading **informational text**, Advanced-level fourth graders should be able to explain the author's intent by using supporting material from the text. They should be able to make critical judgments of the text (including its form and content) and explain their judgments clearly.

Fourth-grade students at the **Advanced level** experienced success with literary and informative texts about less familiar topics. They not only demonstrated understanding of what they read, but also were able to extend, elaborate on, and examine the meaning of literary and informative text.

When reading *literary text*, Advanced-level fourth graders were able to construct responses to a story and generalize about topics in a reading selection by selecting relevant information and building their own interpretations that remained consistent with the text. In addition, they were able to provide brief summarizations across the whole story. They demonstrated only partial ability, however, in integrating their personal experiences and other reading with ideas suggested by the text. Fourth graders at the Advanced level were able to understand some literary devices, such as figurative language, and could interpret authors' intentions. For example, in the nation, 84 percent of the fourth-grade students within the Advanced-level interval were able to provide acceptable responses to the question about the author's techniques in the story about Sybil.

When reading *informational text*, Advanced-level students were able to provide an explanation of the author's techniques for presenting information, although fourth graders were not explicitly asked to support their explanations. They did, however, use information presented in the text to answer other questions. For example, they were able to make critical judgments about the form and content of the text by indicating the relative importance of ideas and were able to gain a more thorough understanding of a particular topic. Some Advanced-level fourth graders could develop their own ideas based on the information presented in the passages and form more complex questions about a selection.

Figure 4 provides the percentage of students at or above each achievement level, as well as the percentage of students below the Basic level. In Michigan, 59 percent of the fourth graders in public schools were at or above the Basic level, 23 percent were at or above the Proficient level, and 3 percent were at or above the Advanced level. Nationwide, 57 percent of the fourth graders were at or above the Basic level, 24 percent were at or above the Proficient level, and 4 percent were at or above the Advanced level. About the same percentage of students in Michigan as across the nation were at or above the Proficient level.

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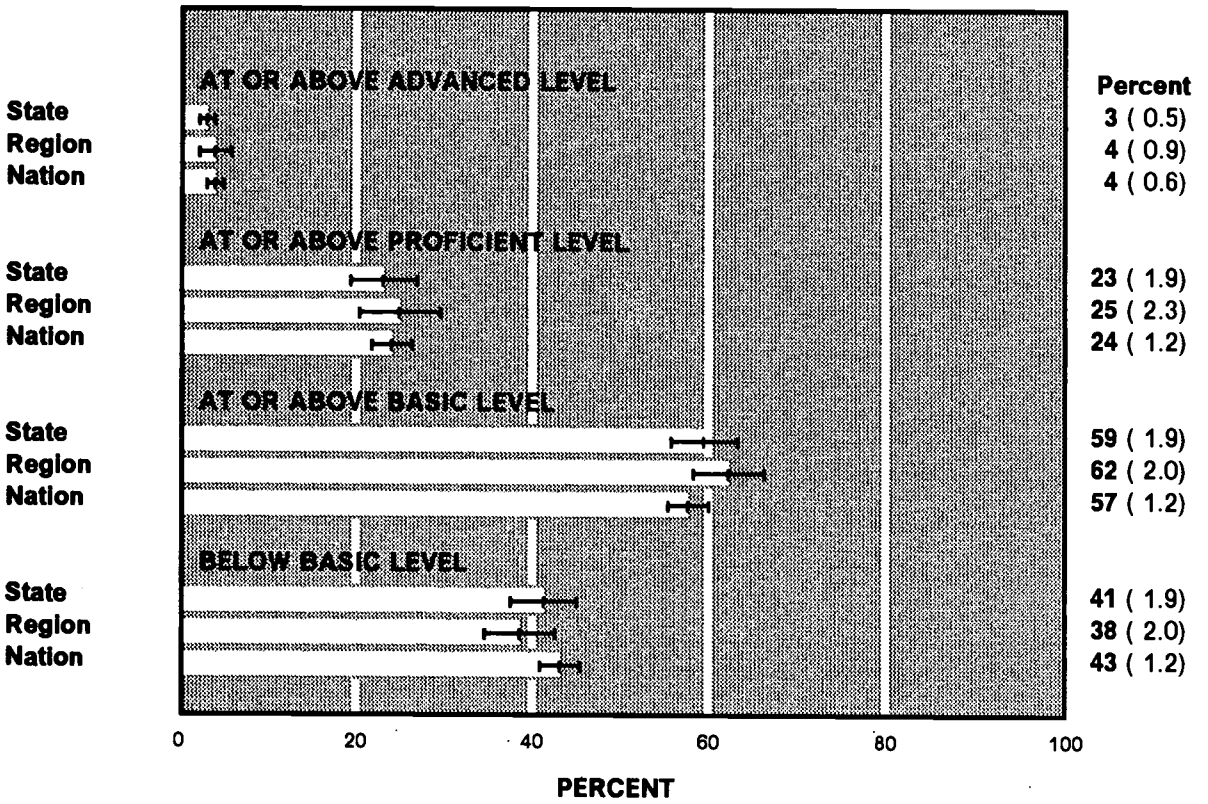
FIGURE 4 | **Levels of Fourth-Grade Public-School Students' Reading Achievement**



The standard errors are presented in parentheses. With about 95 percent confidence, the average reading proficiency for each population of interest is within ± 2 standard errors of the estimated mean (95 percent confidence interval, denoted by ⊢⊣). If the confidence intervals for the populations do not overlap, there is a statistically significant difference between the populations. If they do overlap, the difference may or may not be statistically significant. Statistical tests comparing the two estimates must be conducted that use the standard error of the difference (see Appendix A for details).

Clearly, many students in Michigan fail to meet or exceed the achievement levels that prescribe what students should know and should be able to do. Educators and policymakers will need to look to many sources of information and opinion for explanations of these levels of performance. Among the possible explanations, several factors should not be overlooked. First, students may not be learning enough in school to reach the achievement levels. In 1983, the National Commission on Excellence in Education warned that "the educational foundations of our society are being eroded by a rising tide of mediocrity that threatens our very future."[20] In 1990, the President and the Governors committed the Nation to six goals for education, the third of which called for American students to "leave grades four, eight and twelve having demonstrated competency in challenging subject matter." Many political leaders of this nation have expressed dissatisfaction with the performance of American students. These NAEP findings confirm that a great many American students are not yet performing at high levels.

Second, some students may not be reaching the higher achievement levels because schools may not be teaching the elements of reading that are included on the NAEP assessment, and because the assessment may not be covering some elements of reading included in the school curriculum. No assessment or test can cover all the different areas of reading that are taught in school. The content coverage of the NAEP reading assessment was set by a consensus approach. Teachers, curriculum specialists, subject matter specialists, local school administrators, parents, and members of the general public actively participated in deciding what are the most important elements of reading to be included in the assessment and for students to learn.[21]

Third, the Basic, Proficient, and Advanced achievement levels reflect high performance standards for the 1992 NAEP reading scale. The establishment of achievement levels depends on securing a set of informed judgments of expectations for student educational performance and on summarizing the individual ratings into collective judgments. These expectations reflect the Board's policy definitions, which require that students at the central, Proficient level demonstrate "competency over challenging subject matter." The resulting standards are rigorous.

As measures of performance, both average proficiency scores and percentages of students who score at or above the critical achievement levels on the NAEP scale provide a valuable overall depiction of students' reading achievement. In order to present a closer look at how well students know particular areas of reading, the next section presents student performance according to two purposes for reading.

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[20] National Commission on Excellence in Education, *A Nation at Risk.* (Washington, DC: U.S. Department of Education, 1983). In 1988, then-Secretary Bennett reported that the "precipitous downward slide of previous decades has been arrested, and we have begun the long climb back to reasonable standards." (p. 1 in *American Education: Making it Work.* (Washington, DC: U.S. Department of Education, 1988).)

[21] NAEP Reading Consensus Project. *Reading Framework for the 1992 National Assessment of Educational Progress.* (Washington, DC: National Assessment Governing Board, 1992).

PERFORMANCE ACCORDING TO PURPOSE FOR READING

As previously indicated, the cognitive questions in the Trial State Assessment covered two purposes for reading at grade 4 -- reading for literary experience and reading to gain information. Figure 5 (average proficiency) and Table 4 (percentiles) provide results for Michigan, the Central region, and the nation according to each reading purpose. Students in Michigan performed about the same as students across the nation in reading for literary experience and to gain information.

FIGURE 5 | **Fourth-Grade Public-School Students' Average Reading Proficiency According to Purpose for Reading**

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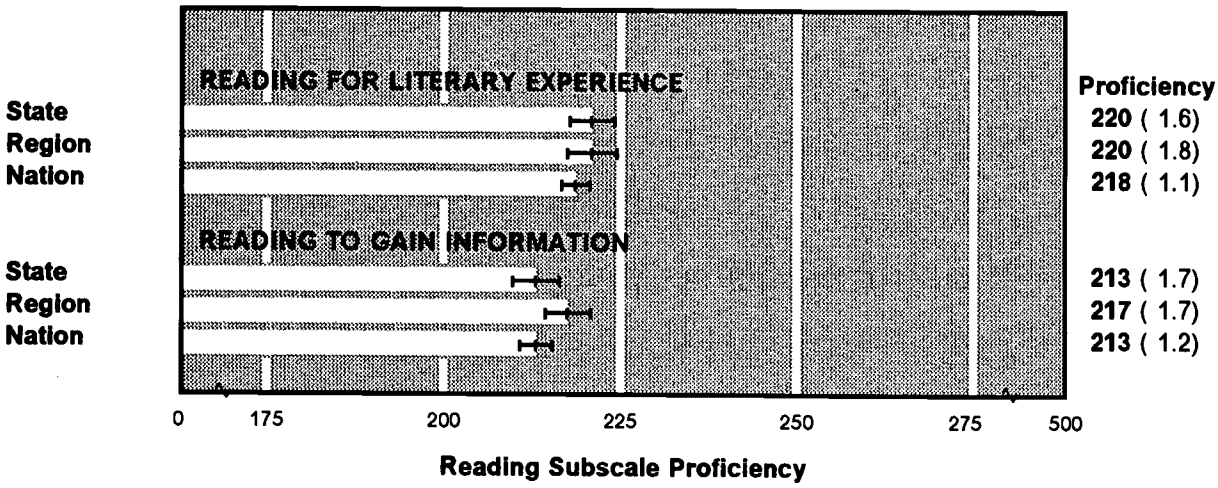

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TABLE 4

Percentiles of Reading Proficiency for Fourth-Grade Public-School Students by Purpose for Reading

	5th Percentile	10th Percentile	25th Percentile	50th Percentile	75th Percentile	90th Percentile	95th Percentile
Reading for Literary Experience							
Michigan	161 (2.6)	175 (2.9)	198 (1.8)	222 (1.8)	244 (2.1)	262 (2.4)	273 (2.0)
Central	157 (4.6)	171 (4.3)	197 (2.4)	223 (2.8)	245 (2.6)	265 (3.1)	277 (3.7)
Nation	153 (2.6)	169 (1.7)	194 (1.5)	220 (1.3)	244 (1.3)	265 (1.4)	277 (2.6)
Reading to Gain Information							
Michigan	150 (3.9)	166 (2.6)	191 (2.4)	216 (2.4)	238 (1.7)	257 (2.1)	267 (1.5)
Central	154 (6.2)	169 (8.2)	194 (4.1)	220 (2.4)	242 (2.9)	261 (2.5)	271 (2.8)
Nation	147 (1.6)	162 (1.9)	188 (1.5)	215 (1.1)	239 (1.3)	260 (1.8)	272 (1.7)

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within ± 2 standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details).

CHAPTER 2

Reading Performance by Subpopulations

Assessment results repeatedly show differences in achievement for subpopulations of students.[22] The 1992 Trial State Assessment provides additional information about the achievement of important subpopulations by reporting on the performance of various subgroups of the student population defined by race/ethnicity, type of community, parents' education level, and gender.

RACE/ETHNICITY

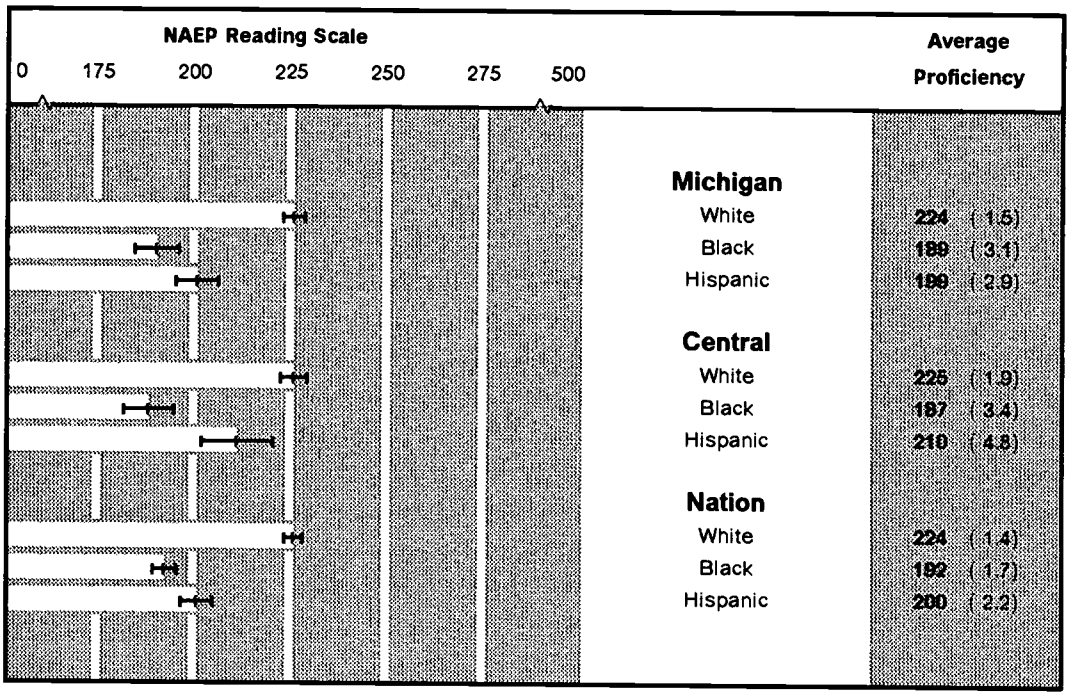
The Trial State Assessment results for different racial/ethnic groups can be compared when the number of students in a racial/ethnic group is sufficient in size to be reliably reported (at least 62 students). Figure 6 (average proficiency) and Table 5 (percentiles) present reading performance results for White, Black, and Hispanic students from Michigan.

[22] Ina V.S. Mullis, John A. Dossey, Mary A. Foertsch, Lee R. Jones, and Claudia A. Gentile. *Trends in Academic Progress*. (Washington, DC: National Center for Education Statistics, 1992).

As shown in Figure 6, White students in Michigan demonstrated higher average reading proficiency than did Black or Hispanic students.

FIGURE 6 | **Fourth-Grade Public-School Students' Average Reading Proficiency by Race/Ethnicity**

THE NATION'S REPORT CARD naep 1992 Trial State Assessment



The NAEP reading scale ranges from 0 to 500. The standard errors are presented in parentheses. With about 95 percent confidence, the average reading proficiency for each population of interest is within ± 2 standard errors of the estimated mean (95 percent confidence interval, denoted by ⊢⊣). If the confidence intervals for the populations do not overlap, there is a statistically significant difference between the populations. If they do overlap, the difference may or may not be statistically significant. Statistical tests comparing the two estimates must be conducted that use the standard error of the difference (see Appendix A for details).

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TABLE 5 **Percentiles of Reading Proficiency for Fourth-Grade Public-School Students by Race/Ethnicity**

	5th Percentile	10th Percentile	25th Percentile	50th Percentile	75th Percentile	90th Percentile	95th Percentile
White							
Michigan	173 (2.6)	185 (1.4)	205 (2.2)	226 (1.7)	245 (1.5)	261 (1.1)	270 (1.9)
Central	170 (4.9)	182 (4.0)	204 (2.1)	226 (2.4)	247 (2.4)	265 (3.4)	274 (3.6)
Nation	166 (2.5)	180 (2.7)	203 (1.4)	226 (1.9)	247 (1.4)	266 (1.7)	276 (3.2)
Black							
Michigan	135 (3.3)	146 (3.3)	168 (4.5)	188 (3.1)	209 (2.5)	231 (4.9)	243 (6.0)
Central	130 (4.8)	144 (6.5)	163 (7.9)	189 (5.6)	212 (4.5)	229 (10.7)	236 (10.9)
Nation	134 (2.5)	147 (3.6)	169 (3.5)	194 (2.1)	216 (3.9)	236 (2.0)	248 (3.2)
Hispanic							
Michigan	142 (5.7)	154 (7.3)	174 (2.0)	200 (6.2)	224 (3.5)	240 (2.2)	249 (5.2)
Central	145 (24.3)	158 (12.6)	184 (4.0)	211 (5.0)	238 (7.0)	256 (17.5)	273 (13.8)
Nation	137 (5.3)	151 (4.0)	175 (2.6)	201 (4.3)	226 (3.5)	247 (2.9)	258 (5.1)

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within ± 2 standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details).

Figure 7 provides the percentage of students by race/ethnicity group at or above each of the three achievement levels and also the percentage below the Basic level. In Michigan, about one quarter of the White students (27 percent), relatively few of the Black students (5 percent), and relatively few of the Hispanic students (8 percent) were at or above the Proficient level. Across the nation, about one quarter of the White students (30 percent), relatively few of the Black students (7 percent), and some of the Hispanic students (12 percent) were at or above the Proficient level.

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FIGURE 7 | **Levels of Fourth-Grade Public-School Students' Reading Achievement by Race/Ethnicity**

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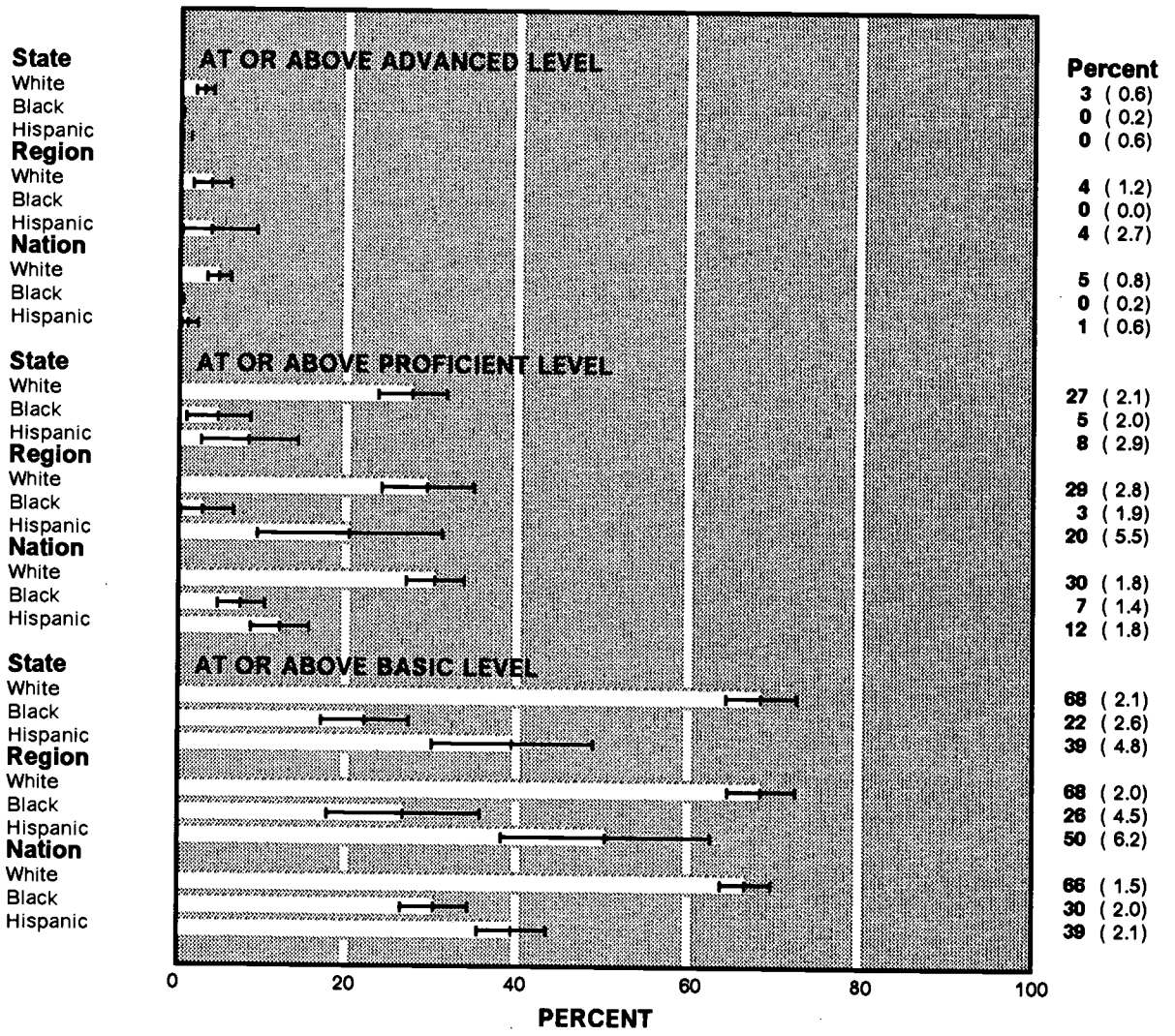

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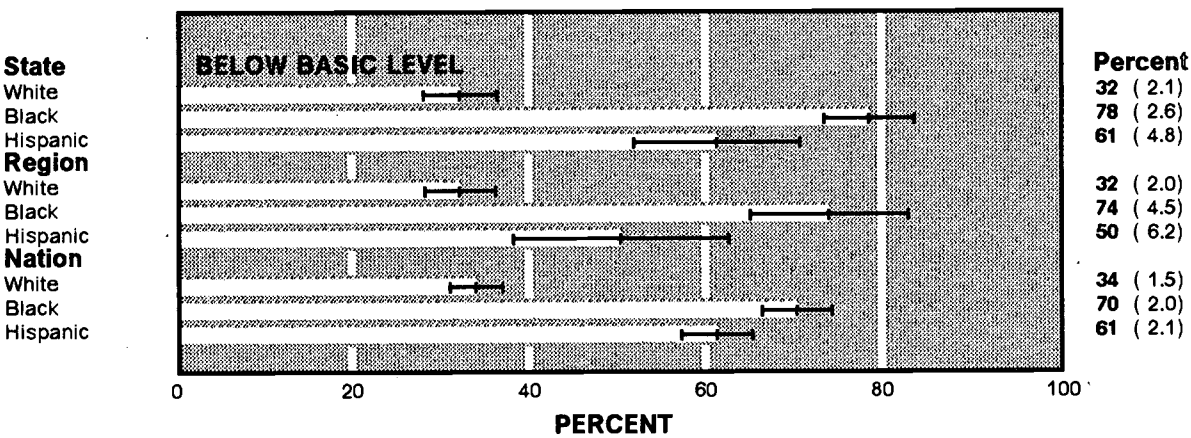
FIGURE 7
(continued)

Levels of Fourth-Grade Public-School Students' Reading Achievement by Race/Ethnicity

THE NATION'S REPORT CARD naep 1992 Trial State Assessment



The standard errors are presented in parentheses. With about 95 percent confidence, the average reading proficiency for each population of interest is within ± 2 standard errors of the estimated mean (95 percent confidence interval, denoted by ⊢⊣). If the confidence intervals for the populations do not overlap, there is a statistically significant difference between the populations. If they do overlap, the difference may or may not be statistically significant. Statistical tests comparing the two estimates must be conducted that use the standard error of the difference (see Appendix A for details).

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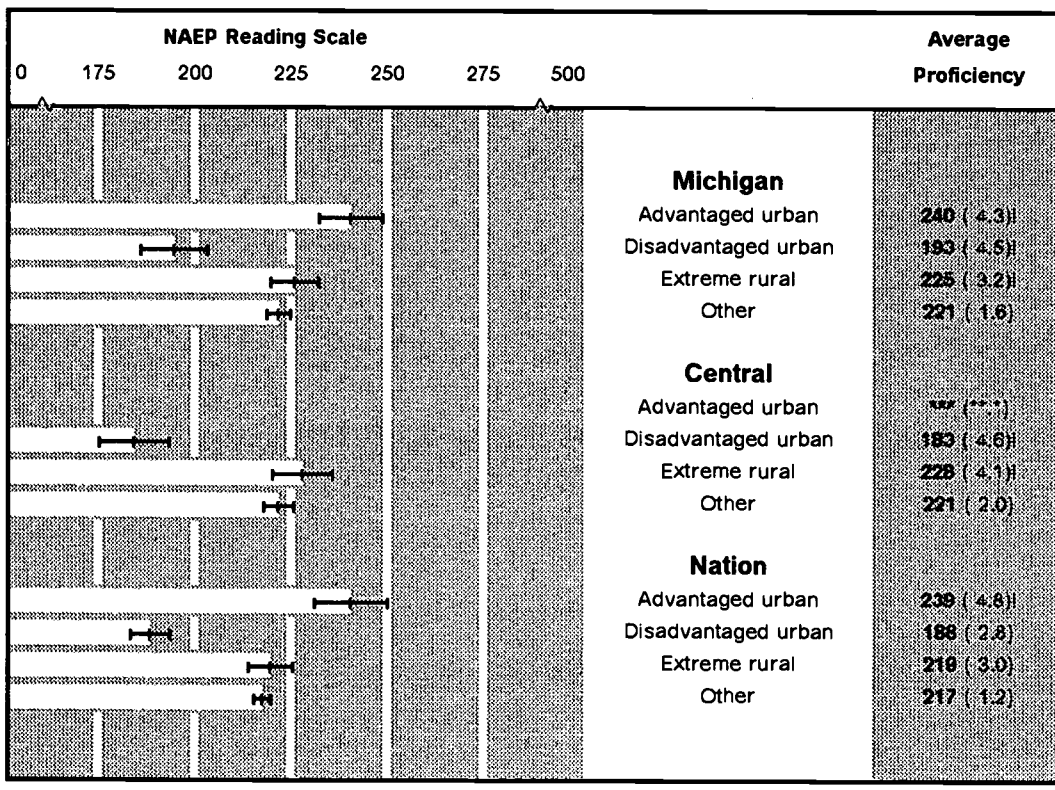
TYPE OF COMMUNITY

Figure 8 (average proficiency) and Table 6 (percentiles) present the reading proficiency results for fourth-grade students attending public schools in advantaged urban areas, disadvantaged urban areas, extreme rural areas, and areas classified as "other". (These are the "type of community" groups in Michigan with student samples large enough to be reliably reported.) The results indicate that the average reading performance of Michigan students attending schools in advantaged urban areas was higher than that of students attending schools in disadvantaged urban areas, extreme rural areas, or areas classified as "other".

FIGURE 8 | **Fourth-Grade Public-School Students' Average Reading Proficiency by Type of Community**

THE NATION'S REPORT CARD naep 1992 Trial State Assessment



The NAEP reading scale ranges from 0 to 500. The standard errors are presented in parentheses. With about 95 percent confidence, the average reading proficiency for each population of interest is within ± 2 standard errors of the estimated mean (95 percent confidence interval, denoted by ⊢⊣). If the confidence intervals for the populations do not overlap, there is a statistically significant difference between the populations. If they do overlap, the difference may or may not be statistically significant. Statistical tests comparing the two estimates must be conducted that use the standard error of the difference (see Appendix A for details). ! Interpret with caution -- the nature of the sample does not allow accurate determination of the variability of this statistic. *** Sample size is insufficient to permit a reliable estimate (fewer than 62 students).

TABLE 6

Percentiles of Reading Proficiency for Fourth-Grade Public-School Students by Type of Community

THE NATION'S REPORT CARD naep 1992 Trial State Assessment

	5th Percentile	10th Percentile	25th Percentile	50th Percentile	75th Percentile	90th Percentile	95th Percentile
Adv. urban							
Michigan	193 (21.4)	207 (5.6)	223 (5.3)	240 (2.8)	258 (6.1)	274 (7.3)	283 (11.7)
Central	*** (***.*)	*** (***.*)	*** (***.*)	*** (***.*)	*** (***.*)	*** (***.*)	*** (***.*)
Nation	187 (7.6)	198 (8.3)	217 (5.6)	240 (7.1)	262 (5.0)	279 (6.0)	289 (5.1)
Disadv. urban							
Michigan	138 (5.1)	150 (9.2)	173 (6.3)	193 (5.4)	214 (6.1)	234 (6.0)	244 (5.6)
Central	124 (5.7)	137 (10.4)	159 (5.5)	182 (8.7)	207 (3.1)	226 (16.0)	241 (17.0)
Nation	128 (4.5)	140 (6.5)	164 (6.6)	189 (5.0)	212 (3.4)	232 (3.1)	243 (4.3)
Extreme rural							
Michigan	173 (4.5)	187 (5.7)	207 (6.1)	227 (2.0)	245 (3.7)	259 (2.6)	268 (1.8)
Central	171 (12.6)	190 (14.8)	214 (6.8)	229 (3.5)	248 (3.5)	264 (9.2)	273 (7.4)
Nation	157 (8.6)	171 (2.5)	197 (5.9)	222 (2.4)	242 (2.3)	261 (5.9)	272 (4.1)
Other							
Michigan	167 (3.4)	180 (2.1)	201 (1.6)	223 (1.7)	242 (2.1)	258 (1.3)	268 (2.2)
Central	163 (6.1)	177 (2.4)	200 (2.1)	223 (2.3)	243 (3.8)	262 (3.6)	271 (2.7)
Nation	156 (2.0)	171 (2.4)	195 (1.4)	219 (1.4)	242 (1.7)	261 (1.8)	271 (2.0)

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within ± 2 standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). *** Sample size is insufficient to permit a reliable estimate (fewer than 62 students).

Figure 9 presents reading performance by achievement levels. About half of the students attending schools in advantaged urban areas (46 percent), relatively few of the students in disadvantaged urban areas (5 percent), about one quarter of the students in extreme rural areas (27 percent), and about one quarter of the students in areas classified as "other" (24 percent) in Michigan were at or above the Proficient level. Across the nation, about half of the students in advantaged urban areas (47 percent), relatively few of the students in disadvantaged urban areas (5 percent), about one quarter of the students in extreme rural areas (24 percent), and about one quarter of the students in areas classified as "other" (24 percent) were at or above the Proficient level.

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FIGURE 9 | **Levels of Fourth-Grade Public-School Students' Reading Achievement by Type of Community**

THE NATION'S REPORT CARD naep 1992 Trial State Assessment

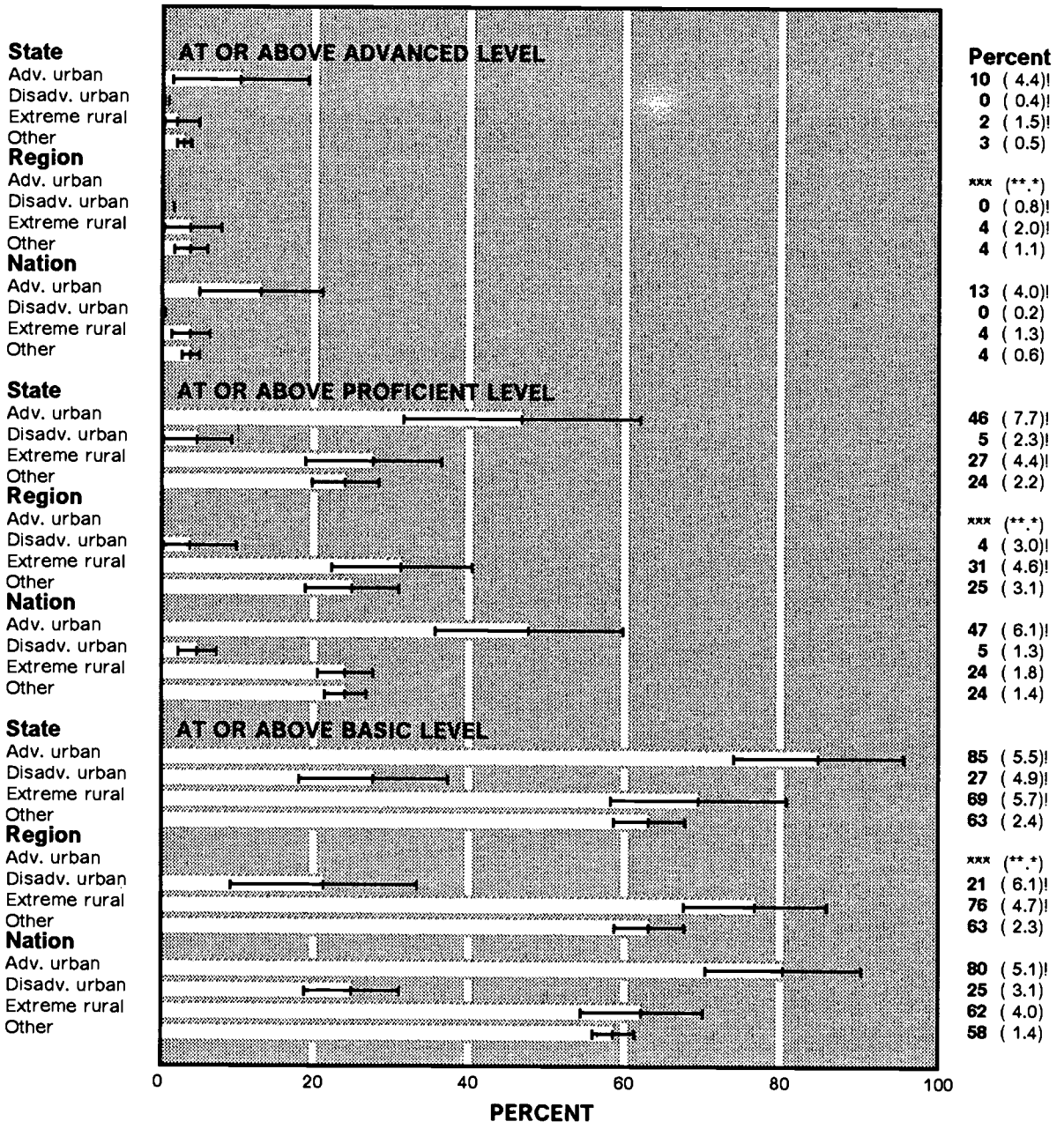

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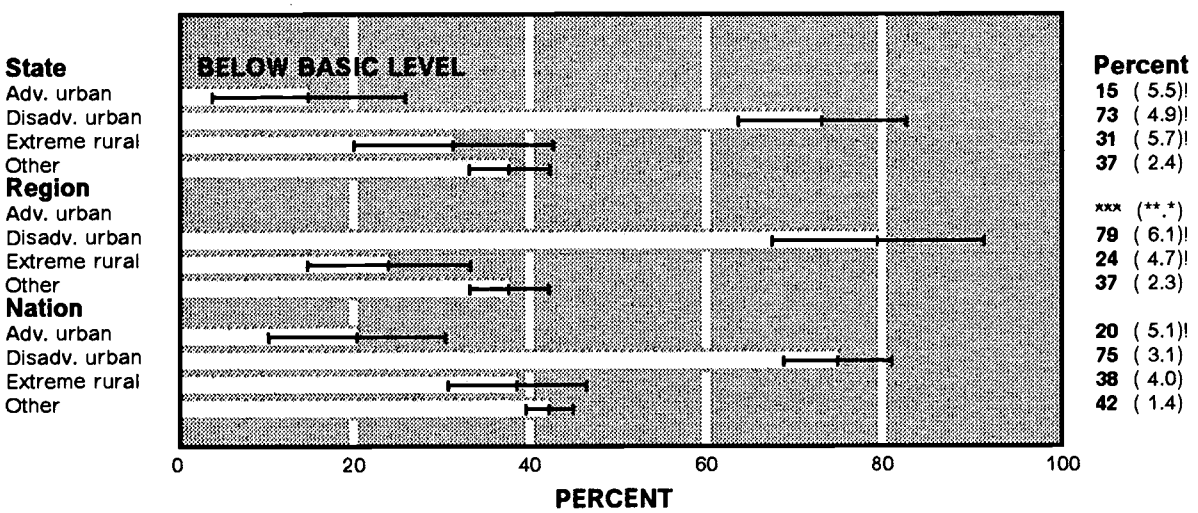
FIGURE 9 (continued)

Levels of Fourth-Grade Public-School Students' Reading Achievement by Type of Community

THE NATION'S REPORT CARD naep 1992 Trial State Assessment



The standard errors are presented in parentheses. With about 95 percent confidence, the average reading proficiency for each population of interest is within ± 2 standard errors of the estimated mean (95 percent confidence interval, denoted by ⊢⊣). If the confidence intervals for the populations do not overlap, there is a statistically significant difference between the populations. If they do overlap, the difference may or may not be statistically significant. Statistical tests comparing the two estimates must be conducted that use the standard error of the difference (see Appendix A for details). ! Interpret with caution -- the nature of the sample does not allow accurate determination of the variability of this statistic. *** Sample size is insufficient to permit a reliable estimate (fewer than 62 students).

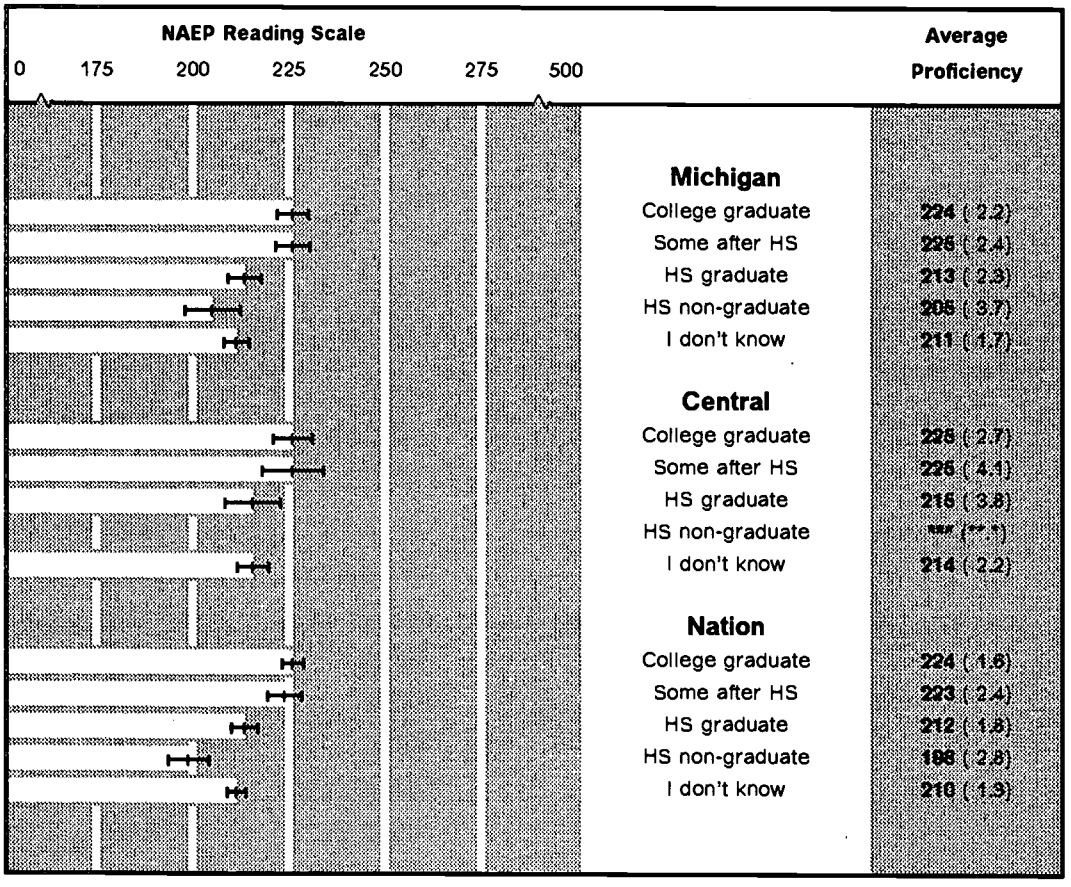
PARENTS' EDUCATION LEVEL

Previous NAEP findings have shown that students whose parents are better educated tend to have higher reading proficiency. Figure 10 (average proficiency), Table 7 (percentiles), and Figure 11 (achievement levels) show the reading performance results for fourth-grade public-school students who reported that at least one parent graduated from college, at least one parent had some education after high school, at least one parent graduated from high school, neither parent graduated from high school, or they did not know their parents' education level. Note that a substantial percentage of fourth-grade students did not know their parents' education level.

As shown in Figure 10, students in Michigan who reported that at least one parent graduated from college demonstrated about the same average reading proficiency as did students who reported that at least one parent had some education after high school, but higher proficiency than did students who reported that at least one parent graduated from high school, neither parent graduated from high school, or they did not know their parents' education level.

FIGURE 10 | **Fourth-Grade Public-School Students' Average Reading Proficiency by Parents' Level of Education**

THE NATION'S REPORT CARD naep 1992 Trial State Assessment



The NAEP reading scale ranges from 0 to 500. The standard errors are presented in parentheses. With about 95 percent confidence, the average reading proficiency for each population of interest is within ± 2 standard errors of the estimated mean (95 percent confidence interval, denoted by ⊢⊣). If the confidence intervals for the populations do not overlap, there is a statistically significant difference between the populations. If they do overlap, the difference may or may not be statistically significant. Statistical tests comparing the two estimates must be conducted that use the standard error of the difference (see Appendix A for details). *** Sample size is insufficient to permit a reliable estimate (fewer than 62 students).

TABLE 7

Percentiles of Reading Proficiency for Fourth-Grade Public-School Students by Parents' Level of Education

THE NATION'S REPORT CARD naep 1992 Trial State Assessment

	5th Percentile	10th Percentile	25th Percentile	50th Percentile	75th Percentile	90th Percentile	95th Percentile
College graduate							
Michigan	164 (5.7)	178 (2.9)	202 (2.7)	227 (4.4)	248 (3.4)	264 (2.5)	273 (3.1)
Central	163 (6.8)	177 (8.0)	203 (2.9)	228 (4.8)	249 (3.0)	267 (4.1)	276 (3.0)
Nation	160 (2.7)	175 (4.0)	200 (2.4)	227 (2.5)	250 (1.5)	269 (1.3)	280 (2.8)
Some after HS							
Michigan	173 (7.2)	185 (8.0)	206 (3.6)	228 (3.2)	246 (4.4)	263 (6.3)	270 (2.9)
Central	171 (9.1)	187 (5.2)	206 (6.2)	226 (7.0)	246 (7.8)	265 (10.9)	275 (10.0)
Nation	162 (7.9)	177 (8.0)	202 (3.8)	225 (4.4)	246 (3.2)	266 (7.3)	277 (4.9)
HS graduate							
Michigan	158 (6.6)	169 (8.6)	193 (3.0)	215 (2.4)	235 (6.8)	253 (7.2)	262 (2.5)
Central	156 (10.9)	175 (5.0)	198 (3.5)	219 (3.3)	236 (3.4)	252 (5.6)	262 (6.6)
Nation	151 (3.4)	165 (1.0)	190 (2.7)	215 (1.9)	236 (3.0)	254 (2.4)	265 (3.1)
HS non-graduate							
Michigan	148 (7.7)	166 (15.8)	185 (8.4)	207 (4.7)	227 (7.8)	244 (4.8)	253 (10.6)
Central	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
Nation	142 (5.3)	154 (6.4)	175 (8.2)	199 (3.0)	222 (6.4)	243 (4.8)	255 (9.8)
I don't know							
Michigan	153 (4.4)	167 (2.9)	189 (1.6)	213 (2.3)	234 (1.8)	251 (2.2)	261 (3.6)
Central	152 (2.8)	167 (5.5)	190 (3.2)	218 (2.4)	239 (4.7)	258 (3.2)	268 (5.7)
Nation	148 (1.6)	163 (1.9)	188 (1.9)	213 (1.5)	234 (1.9)	253 (2.2)	264 (3.1)

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within ± 2 standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). *** Sample size is insufficient to permit a reliable estimate (fewer than 62 students).

Further, from Figure 11, reading achievement in Michigan was at or above the Proficient level for 31 percent of the students who reported that at least one parent graduated from college, 29 percent of the students who reported that at least one parent had some education after high school, 17 percent of the students who reported that at least one parent graduated from high school, 11 percent of the students who reported that neither parent graduated from high school, and 16 percent of the students who reported that they did not know their parents' education level. Across the nation, these figures were 33 percent of the students who reported that at least one parent graduated from college, 28 percent of the students who reported that at least one parent had some education after high school, 18 percent of the students who reported that at least one parent graduated from high school, 10 percent of the students who reported that neither parent graduated from high school, and 17 percent of the students who reported that they did not know their parents' education level.

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FIGURE 11 | **Levels of Fourth-Grade Public-School Students' Reading Achievement by Parents' Level of Education**

THE NATION'S REPORT CARD naep 1992 Trial State Assessment

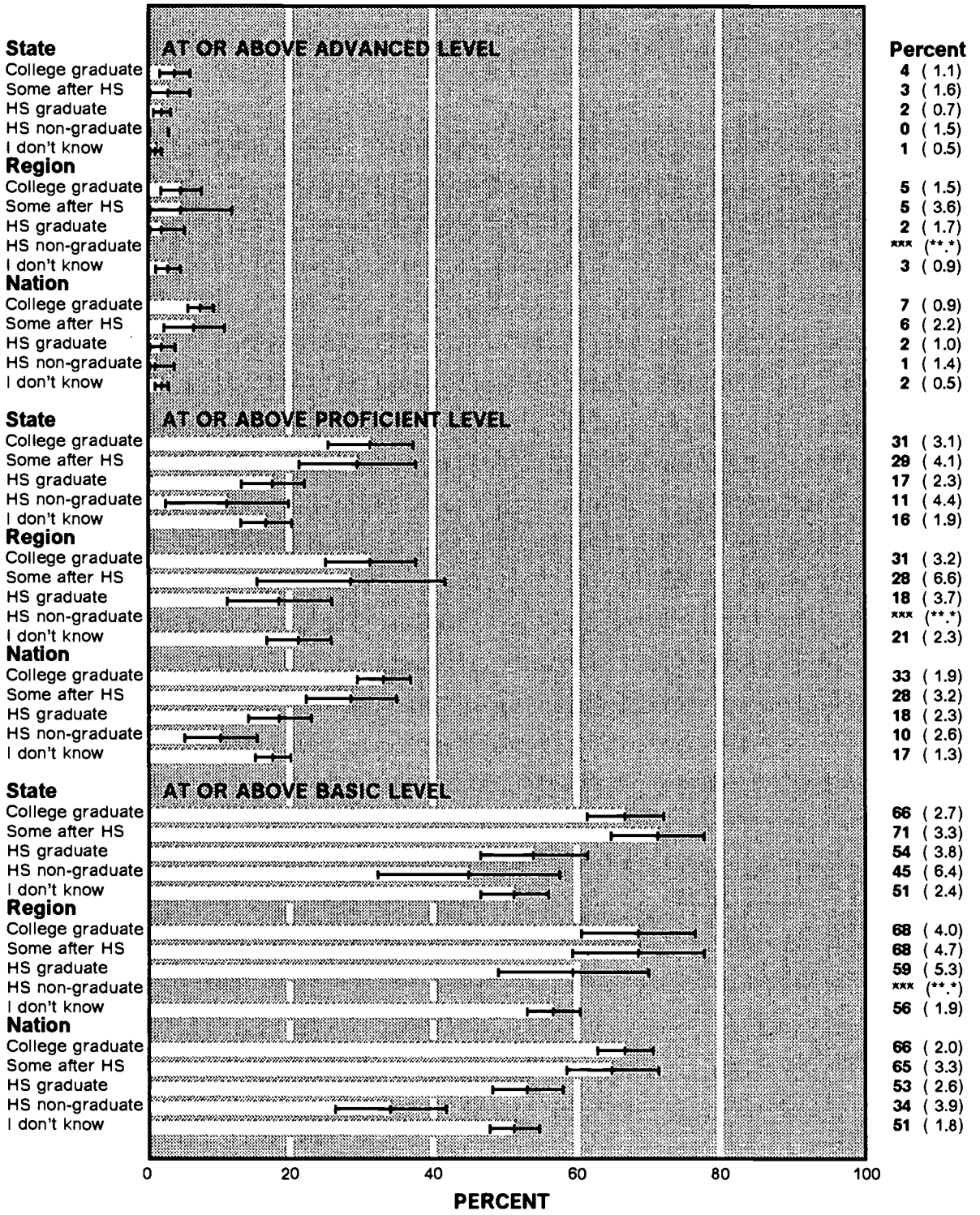

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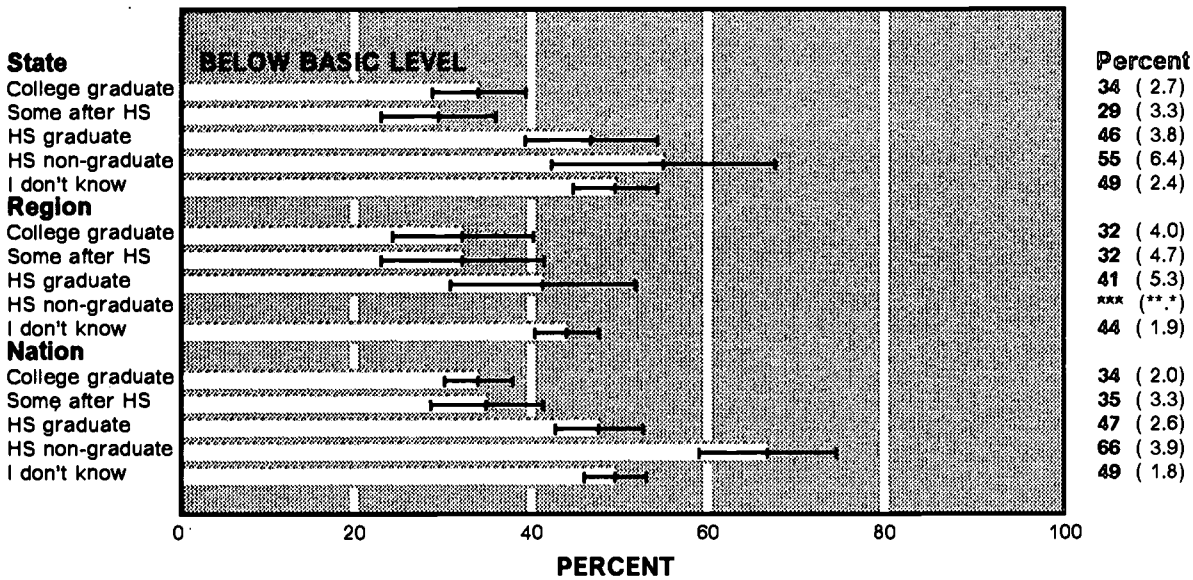
FIGURE 11 (continued)

Levels of Fourth-Grade Public-School Students' Reading Achievement by Parents' Level of Education

THE NATION'S REPORT CARD naep 1992 Trial State Assessment



The standard errors are presented in parentheses. With about 95 percent confidence, the average reading proficiency for each population of interest is within ± 2 standard errors of the estimated mean (95 percent confidence interval, denoted by ⊢⊣). If the confidence intervals for the populations do not overlap, there is a statistically significant difference between the populations. If they do overlap, the difference may or may not be statistically significant. Statistical tests comparing the two estimates must be conducted that use the standard error of the difference (see Appendix A for details). *** Sample size is insufficient to permit a reliable estimate (fewer than 62 students).

GENDER

In general, NAEP reading assessment results for males and females support numerous studies that have revealed gender differences favoring females in reading.[23] However, the 1992 Trial State Assessment results for Michigan do not support those findings.

As shown in Figure 12, in Michigan, there appears to be no significant difference in the average reading profiency of fourth-grade boys and girls attending public schools. Compared to the national results, girls in Michigan performed about the same as girls across the country; boys in Michigan performed about the same as boys across the country. Table 8 provides the percentiles for fourth-grade reading performance results by gender.

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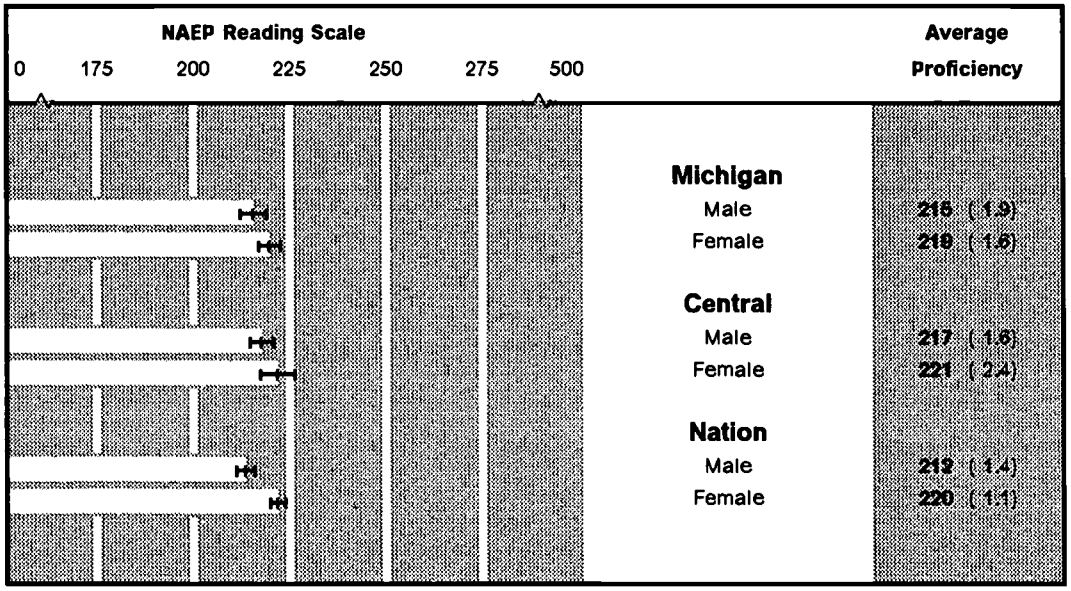
FIGURE 12 | **Fourth-Grade Public-School Students' Average Reading Proficiency by Gender**



The NAEP reading scale ranges from 0 to 500. The standard errors are presented in parentheses. With about 95 percent confidence, the average reading proficiency for each population of interest is within ± 2 standard errors of the estimated mean (95 percent confidence interval, denoted by ⊢⊣). If the confidence intervals for the populations do not overlap, there is a statistically significant difference between the populations. If they do overlap, the difference may or may not be statistically significant. Statistical tests comparing the two estimates must be conducted that use the standard error of the difference (see Appendix A for details).

[23] Gita Z. Wilder and Kristin Powell, *Sex Differences in Test Performance: A Survey of the Literature.* (New York: College Entrance Examination Board, 1989).

THE NATION'S REPORT CARD naep 1992 Trial State Assessment

TABLE 8 **Percentiles of Reading Proficiency for Fourth-Grade Public-School Students by Gender**

	5th Percentile	10th Percentile	25th Percentile	50th Percentile	75th Percentile	90th Percentile	95th Percentile
Male							
Michigan	155 (6.6)	169 (4.0)	193 (2.8)	217 (1.6)	239 (2.6)	257 (1.4)	267 (7.2)
Central	155 (4.9)	170 (4.9)	194 (2.2)	221 (2.1)	242 (4.0)	260 (2.6)	270 (2.7)
Nation	148 (2.2)	163 (2.2)	188 (1.9)	214 (1.3)	238 (1.7)	259 (2.1)	269 (1.8)
Female							
Michigan	163 (4.2)	176 (3.5)	199 (2.6)	222 (1.6)	242 (1.9)	259 (2.4)	268 (2.2)
Central	160 (6.5)	176 (4.8)	200 (2.9)	223 (3.1)	245 (3.5)	264 (4.9)	274 (7.3)
Nation	158 (2.7)	173 (1.9)	197 (2.1)	222 (1.8)	244 (1.7)	264 (2.4)	275 (3.5)

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within ± 2 standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details).

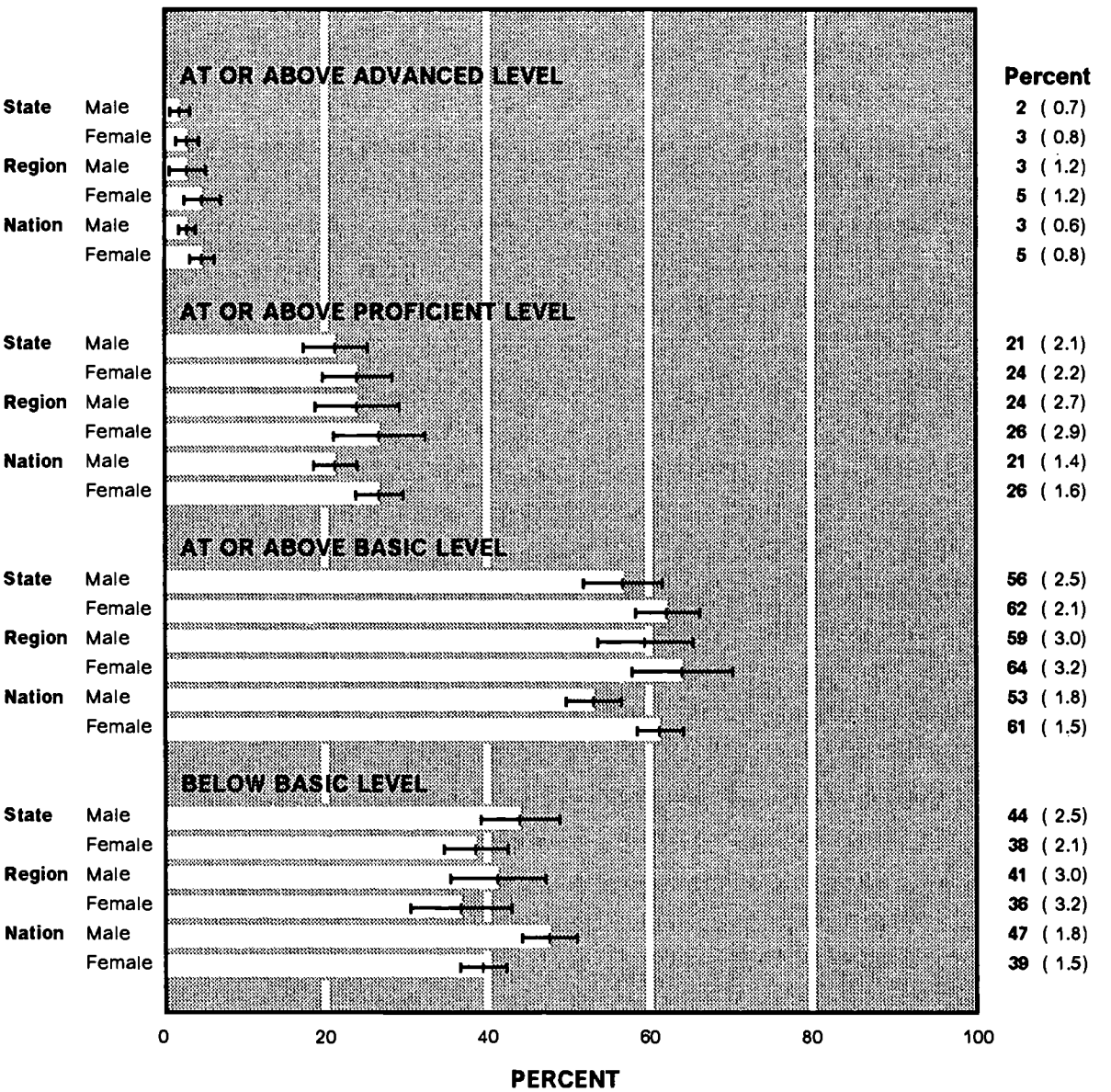
As shown in Figure 13, there was no significant difference between the percentages of males and females in Michigan who attained the Proficient level (24 percent for females and 21 percent for males). The percentage of females in Michigan who attained the Proficient level was about the same as the percentage of females in the nation who attained the Proficient level (24 percent for Michigan and 26 percent for the nation). Similarly, the percentage of males in Michigan who attained the Proficient level was about the same as the percentage of males in the nation who attained the Proficient level (21 percent for Michigan and 21 percent for the nation).

PERFORMANCE ACCORDING TO PURPOSE FOR READING

Table 9 provides a summary of performance according to each of the two purposes for reading by race/ethnicity, type of community, parents' education level, and gender.

THE NATION'S REPORT CARD naep 1992 Trial State Assessment

FIGURE 13 | **Levels of Fourth-Grade Public-School Students' Reading Achievement by Gender**



The standard errors are presented in parentheses. With about 95 percent confidence, the average reading proficiency for each population of interest is within ± 2 standard errors of the estimated mean (95 percent confidence interval, denoted by ⊢⊣). If the confidence intervals for the populations do not overlap, there is a statistically significant difference between the populations. If they do overlap, the difference may or may not be statistically significant. Statistical tests comparing the two estimates must be conducted that use the standard error of the difference (see Appendix A for details).

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TABLE 9

Fourth-Grade Public-School Students' Average Reading Proficiency for "Purpose for Reading" by Subpopulation

		Reading for Literary Experience	Reading to Gain Information
		Proficiency	Proficiency
TOTAL			
	Michigan	220 (1.6)	213 (1.7)
	Central	220 (1.8)	217 (1.7)
	Nation	218 (1.1)	213 (1.2)
RACE/ETHNICITY			
White	Michigan	227 (1.7)	221 (1.7)
	Central	226 (2.0)	223 (2.1)
	Nation	226 (1.3)	222 (1.6)
Black	Michigan	195 (3.2)	181 (3.4)
	Central	188 (3.6)	185 (3.8)
	Nation	195 (1.7)	189 (1.9)
Hispanic	Michigan	200 (3.3)	196 (3.6)
	Central	213 (5.4)	206 (4.8)
	Nation	205 (2.6)	194 (2.2)
TYPE OF COMMUNITY			
Advantaged urban	Michigan	243 (4.4)!	236 (5.1)!
	Central	*** (** *)	*** (** *)
	Nation	241 (4.9)!	237 (5.0)!
Disadvantaged urban	Michigan	198 (3.8)!	186 (5.8)!
	Central	185 (4.9)!	179 (4.6)!
	Nation	191 (2.7)	183 (3.1)
Extreme rural	Michigan	229 (3.2)!	220 (4.0)!
	Central	229 (4.4)!	226 (4.1)!
	Nation	222 (2.9)	216 (3.4)
Other	Michigan	223 (2.0)	218 (1.9)
	Central	222 (2.6)	220 (1.8)
	Nation	219 (1.4)	214 (1.4)
PARENTS' EDUCATION			
College graduate	Michigan	226 (2.1)	220 (2.6)
	Central	225 (2.9)	223 (2.7)
	Nation	226 (1.6)	222 (1.7)
Some after HS	Michigan	227 (2.6)	223 (2.6)
	Central	227 (5.2)	223 (3.2)
	Nation	225 (2.9)	219 (2.2)
HS graduate	Michigan	216 (3.4)	209 (3.7)
	Central	218 (4.2)	212 (3.8)
	Nation	215 (2.1)	208 (2.0)
HS non-graduate	Michigan	209 (4.1)	200 (4.0)
	Central	*** (** *)	*** (** *)
	Nation	202 (3.1)	193 (2.7)
I don't know	Michigan	215 (1.8)	206 (1.9)
	Central	215 (2.3)	212 (2.6)
	Nation	212 (1.4)	207 (1.5)
GENDER			
Male	Michigan	217 (2.0)	213 (2.0)
	Central	218 (2.0)	216 (1.8)
	Nation	214 (1.6)	210 (1.5)
Female	Michigan	224 (1.6)	214 (1.9)
	Central	223 (2.7)	219 (2.4)
	Nation	223 (1.1)	216 (1.4)

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within ± 2 standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). ! Interpret with caution -- the nature of the sample does not allow accurate determination of the variability of this statistic. *** Sample size is insufficient to permit a reliable estimate (fewer than 62 students).

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PART TWO

Finding a Context for Understanding Students' Reading Proficiency

Information on the reading performance of students in Michigan can be better understood and used for improving instruction and setting policy when supplemented with contextual information about schools, teachers, and students.

To gather contextual information, the fourth-grade students participating in the 1992 Trial State Assessment, their reading teachers, and the principals or other administrators in their schools were asked to complete questionnaires on policies, instruction, and programs. The student, teacher, and school data help to describe some of the current practices and emphases in reading education, illuminate some of the factors that appear to be related to fourth-grade public-school students' reading proficiency, and provide an educational context for understanding information on student achievement.

It is important to note that the NAEP data cannot establish cause-and-effect links between various contextual factors and students' reading proficiency. However, the results do provide information about important relationships between the contextual factors and proficiency. Through the questionnaires administered to students, teachers, and principals, NAEP is able to provide a broad picture of educational practices prevalent in American schools and classrooms.

Part Two consists of four chapters. Chapter 3 discusses policies and practices related to reading. Chapter 4 focuses on instructional practices -- how instruction is delivered. Chapter 5 provides information about teachers, and Chapter 6 examines students' home support for literacy.

CHAPTER 3

Policies and Practices Related to Reading

This chapter focuses on curricular and instructional content issues in Michigan public schools and their relationship to students' reading proficiency. Table 10 provides a profile of the reading policies in the public schools with fourth grades in Michigan. Some of the selected results obtained from teacher and school questionnaires reveal:

- According to the schools in Michigan, 86 percent of the fourth-grade students were in schools where reading was identified as receiving special emphasis. This compares with 86 percent across the country.

- According to their reading teachers, 30 percent of the students in Michigan were typically taught reading in a class that was grouped by reading ability. Ability grouping was about as prevalent across the nation (34 percent).

- According to the schools in Michigan, 54 percent of the students were in schools in which the fourth-grade students stay with the same teacher for all academic subjects, 7 percent were in schools in which students have different teachers in most or all academic subjects, and 39 percent were in schools in which students remain with one teacher for most subjects but may have a different teacher for one or two subjects. Across the country these figures were 48 percent, 10 percent, and 42 percent, respectively.

- According to the teachers in Michigan, 71 percent of the students had teachers who had a reading curriculum specialist available to help or advise. Nationally, 64 percent of the students had teachers who had a reading curriculum specialist available to help or advise.

- According to the schools in Michigan, 97 percent of the fourth graders were in schools in which parents were used as aides in the classroom. This compares with 89 percent across the country.

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TABLE 10 | **Reading Policies and Practices in Michigan Fourth-Grade Public Schools**

	Michigan	Central	Nation
	Percentage	Percentage	Percentage
Percentage of students in public schools that identified **reading as receiving special emphasis** in school-wide goals and objectives, instruction, in-service training, etc.	86 (3.3)	86 (5.6)	86 (2.8)
Percentage of students in public schools who are **assigned to a reading class by their reading ability**	30 (4.3)	28 (6.9)	34 (4.1)
Percentage of students in public schools who **stay with the same teacher for all academic subjects**	54 (5.8)	49 (7.3)	48 (3.6)
Percentage of students in public schools who **have different teachers in most or all academic subjects**	7 (2.8)	9 (2.2)	10 (1.9)
Percentage of students in public schools who **remain with one teacher for most subjects but may have a different teacher for one or two subjects**	39 (5.9)	42 (6.6)	42 (3.9)
Percentage of students in public schools for which **a reading curriculum specialist is available to help or advise**	71 (3.5)	66 (6.5)	64 (3.2)
Percentage of students in public schools that use **parents as aides in classrooms**	97 (1.3)	88 (5.4)	89 (2.6)

The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within ± 2 standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details).

TIME FOR INSTRUCTIONAL ACTIVITIES

Studies of school effectiveness indicate that schools that are successful in teaching reading maximize the amount of time available for student learning.[24] Thus, to begin to place students' reading proficiency in context, it is useful to examine the extent to which fourth-grade students' reading teachers in Michigan are spending their time on instructional activities. Students' teachers were asked to report on the amount of time they spent with each class for reading instruction on a typical day. Table 11 and Table A11 (Page 136) in the Data Appendix[25] show that:

[24] R.C. Anderson, E.H. Hiebert, J.A. Scott, and I.A.G. Wilkinson. *Becoming a Nation of Readers: The Report of the Commission on Reading.* (U.S. Department of Education: The National Institute of Education, 1985).

[25] For every table in the body of the report that includes estimates of average proficiency, the Data Appendix provides a corresponding table presenting the results for the four subpopulations -- race/ethnicity, type of community, parents' education level, and gender.

- In Michigan, 72 percent of the fourth-grade students had reading teachers who spent at least 60 minutes providing reading instruction each day. By comparison, 28 percent of the students had reading teachers who spent 45 minutes or less providing reading instruction each day.

- Across the nation, 71 percent of the fourth-grade students had reading teachers who spent at least 60 minutes providing reading instruction each day. Additionally, 29 percent of the students had reading teachers who spent 45 minutes or less providing reading instruction each day.

- In Michigan, students whose reading teachers provided at least 60 minutes of reading instruction had about the same* reading proficiency as did students whose teachers provided 45 minutes or less of reading instruction each day.

- In Michigan, the results by type of community show that 57 percent of the students attending schools in advantaged urban areas, 90 percent of the students in disadvantaged urban areas, 81 percent of the students in extreme rural areas, and 72 percent of the students in areas classified as "other" had teachers who spent at least 60 minutes providing reading instruction each day.

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TABLE 11 | **Teachers' Reports on Time Spent Teaching Reading**

About how much time do you spend on reading instruction on a typical day?	Michigan Percentage and Proficiency	Central Percentage and Proficiency	Nation Percentage and Proficiency
45 minutes or less	28 (4.1) 222 (4.3)	24 (7.3) 216 (3.4)!	29 (3.2) 217 (2.3)
60 minutes	59 (4.0) 216 (1.5)	67 (8.6) 224 (3.1)	52 (3.4) 218 (1.9)
90 minutes or more	14 (2.3) 213 (2.9)	9 (2.1) 214 (5.0)!	19 (1.8) 215 (2.6)

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within ± 2 standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). ! Interpret with caution -- the nature of the sample does not allow accurate determination of the variability of this statistic.

* Recall that "about the same" means that the difference between these two groups, although it may appear large, is not statistically significant.

INSTRUCTIONAL EMPHASIS

There is no single best method for teaching and learning reading that is proven to be successful for everyone. Rather, it is likely that a variety of approaches and programs can produce able readers. To provide information about the major types of reading approaches used in Michigan, fourth-grade students' reading teachers were asked to report on the amount of instructional emphasis they gave to six methods for teaching reading -- phonics, integration of reading and writing, whole language, literature-based reading, reading across the content areas, and individualized reading programs.

Table 12 provides the results for the extreme emphasis categories -- "heavy emphasis" and "little or no emphasis" -- for each of the six methods. According to the reading teachers:

- In Michigan, relatively few of the fourth-grade students (9 percent) were being taught by teachers who placed heavy emphasis on phonics; about half (49 percent) were being taught by teachers who placed heavy emphasis on the integration of reading and writing; and less than half (41 percent) were being taught by teachers who placed heavy emphasis on the whole language approach.

- In addition, in Michigan, about half of the fourth-grade students (46 percent) were being taught by teachers who placed heavy emphasis on literature-based reading; about half (48 percent) were being taught by teachers who placed heavy emphasis on reading across the content areas; and relatively few (5 percent) were being taught by teachers who placed heavy emphasis on individualized reading programs.

- By comparison, in Michigan, less than half of the fourth-grade students (42 percent) were being taught by teachers who placed little or no emphasis on phonics; relatively few (3 percent) were being taught by teachers who placed little or no emphasis on the integration of reading and writing; and some (15 percent) were being taught by teachers who placed little or no emphasis on the whole language approach.

- In addition, in Michigan, relatively few of the fourth-grade students (10 percent) were being taught by teachers who placed little or no emphasis on literature-based reading; relatively few (4 percent) were being taught by teachers who placed little or no emphasis on reading across the content areas; and more than half (60 percent) were being taught by teachers who placed little or no emphasis on individualized reading programs.

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TABLE 12

Teachers' Reports on Emphasis Given to Specific Methods for Teaching Reading

Teacher "emphasis" categories	Michigan Percentage and Proficiency	Central Percentage and Proficiency	Nation Percentage and Proficiency
Phonics			
Heavy emphasis	9 (1.6) 204 (4.6)	8 (3.5) 207 (6.4)!	11 (1.4) 206 (2.9)
Little or no emphasis	42 (3.1) 223 (2.0)	38 (3.8) 223 (3.6)	40 (2.4) 221 (2.4)
Integration of Reading and Writing			
Heavy emphasis	49 (3.7) 217 (2.3)	56 (5.6) 223 (2.8)	55 (2.7) 220 (2.2)
Little or no emphasis	3 (1.0) *** (***.*)	2 (1.0) *** (***.*)	3 (0.9) 211 (5.4)!
Whole Language			
Heavy emphasis	41 (3.4) 219 (3.1)	34 (7.2) 225 (4.1)!	42 (3.0) 219 (2.6)
Little or no emphasis	15 (2.3) 214 (3.5)	19 (3.7) 221 (4.0)	18 (1.8) 215 (2.0)
Literature-based Reading			
Heavy emphasis	46 (3.9) 220 (2.1)	55 (5.3) 224 (2.0)	50 (3.1) 220 (2.0)
Little or no emphasis	10 (1.9) 211 (6.8)!	9 (3.5) 219 (5.8)!	11 (1.9) 208 (3.2)
Reading Across the Content Areas			
Heavy emphasis	48 (3.7) 221 (2.2)	43 (4.8) 219 (3.0)	49 (2.7) 216 (2.0)
Little or no emphasis	4 (1.3) 220 (4.5)!	11 (4.2) 225 (7.4)!	9 (2.1) 214 (4.4)!
Individualized Reading Programs			
Heavy emphasis	5 (1.3) 207 (7.6)!	4 (1.1) *** (***.*)	11 (1.6) 216 (3.5)
Little or no emphasis	60 (4.1) 217 (1.9)	69 (5.2) 222 (2.6)	54 (2.8) 219 (1.8)

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within ± 2 standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). The percentages may not total 100 percent because the "Moderate Emphasis" category is not included. ! Interpret with caution -- the nature of the sample does not allow accurate determination of the variability of this statistic. *** Sample size is insufficient to permit a reliable estimate (fewer than 62 students).

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SUMMARY

Effective teachers of reading create a literate classroom environment. They allocate an adequate amount of time to reading and writing, sustain children's attention, maintain a brisk pace, and keep rates of success high.[26] In Michigan, the information on curricular and instructional content issues has revealed the following:

- According to the schools in Michigan, 86 percent of the fourth-grade students were in schools where reading was identified as receiving special emphasis. This compares with 86 percent across the country.
- According to the teachers in Michigan, 71 percent of the students had teachers who had a reading curriculum specialist available to help or advise. Nationally, 64 percent of the students had teachers who had a reading curriculum specialist available to help or advise.
- According to the schools in Michigan, 97 percent of the students were in schools in which parents were used as aides in the classroom. This compares with 89 percent across the country.
- In Michigan, 72 percent of the fourth-grade students had reading teachers who spent at least 60 minutes providing reading instruction each day. By comparison, 28 percent of the students had reading teachers who spent 45 minutes or less providing reading instruction each day.

[26] R.C. Anderson, E.H. Hiebert, J.A. Scott, and I.A.G. Wilkinson. *Becoming a Nation of Readers: The Report of the Commission on Reading.* (U.S. Department of Education: The National Institute of Education, 1985).

CHAPTER 4

How Is Reading Instruction Delivered?

Effective classroom instruction can help students become thoughtful readers.[27] The instructional activities that students engage in can also lead them to view reading in particular ways[28] and to focus on developing certain skills and strategies. To provide information about how instruction is delivered in Michigan, fourth-grade public-school students participating in the Trial State Assessment Program and their reading teachers were asked to report on the use of various teaching and learning activities in their reading classrooms.

INSTRUCTIONAL MATERIALS FOR READING

Basal reading programs are a traditional part of reading instruction in this country. They typically include a compilation of reading passages and exercises, as well as ancillary materials, such as workbooks and tests. These types of programs account for at least two-thirds of all expenditures for reading instruction and are used in more than 95 percent of all school districts through grade 6.[29] However, other types of reading programs may utilize trade books, such as story or informational books, that are not necessarily published for the sole purpose of reading instruction. When students encounter a variety of texts, they expand their general understanding of language, as well as their understanding of text and its underlying structures.[30] To provide information about instructional materials used for fourth-grade classes, students' reading teachers were asked to report about the type of materials that formed the core of their reading program. Table 13 and Table A13 (Page 142) in the Data Appendix provide the results. According to Michigan reading teachers:

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[27] M.A. Foertsch. *Reading In and Out of School.* (Washington, DC: National Center for Education Statistics, 1992).

[28] J.A. Dole, G.G. Duffy, L.R. Roehler, and P.D. Pearson. "Moving From the Old to the New: Research on Reading Comprehension Instruction," *Review of Educational Research, 61.* (1991).

[29] Jeanne S. Chall and James R. Squire. "The Publishing Industry and Textbooks," in R. Barr, M. Kamil, P. Mosenthal, and P.D. Pearson, Eds., *Handbook of Reading Research, Volume II.* (New York, NY: Longman, 1991).

[30] A. Applebee, J. Langer, and I. Mullis. *Who Reads Best?* (Princeton, NJ: National Assessment of Educational Progress, Educational Testing Service, 1988).

- About half of the fourth-grade public-school students in Michigan (51 percent) had reading teachers who used both basal and trade books, less than half (37 percent) had reading teachers who primarily used basal readers, and relatively few (8 percent) had reading teachers who primarily used trade books.

- About half of the students attending schools in advantaged urban areas (55 percent), less than half of the students in disadvantaged urban areas (31 percent), more than half of the students in extreme rural areas (58 percent), and about half of the students in areas classified as "other" (52 percent) in Michigan had reading teachers who used both basal and trade books.

- Relatively few of the students attending schools in advantaged urban areas (5 percent), more than half of the students in disadvantaged urban areas (68 percent), less than half of the students in extreme rural areas (39 percent), and less than half of the students in areas classified as "other" (34 percent) in Michigan had reading teachers who primarily used basal readers.

- About one quarter of the students attending schools in advantaged urban areas (30 percent), relatively few of the students in disadvantaged urban areas (1 percent), relatively few of the students in extreme rural areas (2 percent), and relatively few of the students in areas classified as "other" (9 percent) in Michigan had reading teachers who primarily used trade books.

- Students in Michigan whose teachers used both basal and trade books had about the same average reading proficiency as those whose teachers primarily used basal readers and lower average reading proficiency than those whose teachers primarily used trade books.

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TABLE 13 **Teachers' Reports on Instructional Materials for Reading**

What type of materials form the core of your reading program?	Michigan Percentage and Proficiency	Central Percentage and Proficiency	Nation Percentage and Proficiency
Primarily basal	37 (3.8) 214 (2.2)	30 (5.0) 218 (5.0)	33 (2.6) 214 (2.2)
Primarily trade books	8 (1.5) 228 (3.5)	15 (4.9) 227 (2.9)!	13 (2.3) 224 (4.5)
Both basal and trade books	51 (3.6) 218 (2.3)	52 (7.5) 222 (2.2)	51 (3.6) 218 (1.5)
Other	4 (1.7) 221 (6.3)!	2 (0.6) *** (** *)	3 (1.1) 209 (6.5)!

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within ± 2 standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). ! Interpret with caution -- the nature of the sample does not allow accurate determination of the variability of this statistic. *** Sample size is insufficient to permit a reliable estimate (fewer than 62 students).

INSTRUCTIONAL RESOURCES FOR READING

Teachers' use of resources is obviously constrained by the availability of those resources. Thus, the assessed students' teachers were asked about the extent to which they were able to obtain all of the instructional materials and other resources they needed. From Table 14 and Table A14 (Page 144) in the Data Appendix:

- In Michigan, 7 percent of the fourth-grade students had reading teachers who reported getting all of the resources they needed, while 48 percent of the students were taught by teachers who got only some or none of the resources they needed. Across the nation, these figures were 11 percent and 39 percent, respectively.

- In Michigan, 15 percent of the students attending schools in advantaged urban areas, 6 percent of the students in disadvantaged urban areas, 21 percent of the students in extreme rural areas, and 5 percent of the students in areas classified as "other" had reading teachers who got all of the resources they needed.

- By comparison, 48 percent of the students attending schools in advantaged urban areas, 49 percent of the students in disadvantaged urban areas, 58 percent of the students in extreme rural areas, and 44 percent of the students in areas classified as "other" in Michigan were in classrooms where only some or no resources were available.

- Students in Michigan whose teachers got all of the resources they needed had about the same average reading proficiency as those whose teachers got only some or none of the resources they needed.

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TABLE 14 | **Teachers' Reports on the Availability of Resources**

Which of the following statements is true about how well your school system supplies you with the instructional materials and other resources you need to teach your class?	Michigan Percentage and Proficiency	Central Percentage and Proficiency	Nation Percentage and Proficiency
I get all the resources I need.	7 (1.7) 222 (7.2)!	14 (5.0) 224 (3.9)!	11 (1.7) 221 (3.1)
I get most of the resources I need.	45 (3.5) 218 (1.7)	58 (5.6) 221 (2.9)	51 (2.9) 219 (1.8)
I get some or none of the resources I need.	48 (3.6) 217 (2.4)	28 (7.8) 218 (4.0)!	39 (3.5) 214 (1.7)

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within ± 2 standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). ! Interpret with caution -- the nature of the sample does not allow accurate determination of the variability of this statistic.

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Teachers were also asked about their use of specific types of resources that can be used to add depth and variety to the reading program. As indicated in Table 15:

- In Michigan, 2 percent of the fourth-grade students had reading teachers who used children's newspapers and/or magazines almost every day; 7 percent of the students had reading teachers who used reading kits almost every day; 3 percent had reading teachers who used computer software for reading instruction almost every day; 35 percent had reading teachers who used a variety of books almost every day; and, finally, 27 percent had teachers who used materials from other subject areas almost every day.

- By comparison, in Michigan, 35 percent of the fourth-grade students had reading teachers who never or hardly ever used children's newspapers and/or magazines; 67 percent of the students had reading teachers who never or hardly ever used reading kits; 60 percent had reading teachers who never or hardly ever used computer software for reading instruction; 6 percent had reading teachers who never or hardly ever used a variety of books; and 12 percent had teachers who never or hardly ever used materials from other subject areas.

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TABLE 15

Teachers' Reports on Resources for Reading Instruction

How often do you use the following resources to teach reading?	Michigan Percentage and Proficiency	Central Percentage and Proficiency	Nation Percentage and Proficiency
Children's newspapers and/or magazines			
Almost every day	2 (1.2) *** (***.*)	1 (1.0) *** (***.*)	1 (0.4) *** (***.*)
Once or twice a week	31 (3.6) 220 (2.5)	35 (7.1) 223 (2.5)	31 (3.1) 219 (2.3)
Once or twice a month	32 (3.8) 216 (2.7)	24 (4.6) 216 (3.6)!	32 (2.4) 214 (2.0)
Never or hardly ever	35 (3.5) 217 (2.8)	40 (5.1) 222 (3.9)	36 (2.6) 219 (2.2)
Reading kits			
Almost every day	7 (1.9) 219 (5.5)!	3 (1.0) *** (***.*)	7 (1.3) 208 (4.0)
Once or twice a week	6 (1.6) 212 (5.5)!	15 (5.2) 216 (7.2)!	15 (2.2) 213 (3.2)
Once or twice a month	20 (3.1) 211 (3.4)	29 (5.7) 222 (4.2)	20 (2.4) 219 (2.3)
Never or hardly ever	67 (3.3) 220 (2.0)	53 (7.4) 222 (3.3)	58 (3.2) 219 (2.2)
Computer software for reading instruction			
Almost every day	3 (1.3) *** (***.*)	2 (1.6) *** (***.*)	4 (1.1) 213 (4.1)!
Once or twice a week	10 (2.1) 214 (3.9)!	15 (4.5) 218 (3.5)!	21 (2.7) 213 (2.8)
Once or twice a month	27 (3.2) 221 (2.9)	30 (6.5) 219 (3.4)!	23 (2.7) 217 (2.7)
Never or hardly ever	60 (3.7) 216 (2.2)	53 (8.3) 223 (3.2)	52 (3.8) 219 (1.9)
A variety of books (e.g., novels, collections of poetry, nonfiction)			
Almost every day	35 (3.4) 222 (2.4)	49 (8.0) 222 (3.3)	43 (3.6) 220 (2.4)
Once or twice a week	30 (3.5) 212 (3.3)	19 (5.8) 220 (4.4)!	22 (2.4) 214 (2.5)
Once or twice a month	29 (3.7) 220 (2.4)	24 (4.7) 220 (5.1)	26 (3.0) 217 (2.3)
Never or hardly ever	6 (1.7) 209 (5.4)!	8 (3.3) *** (***.*)	9 (1.5) 210 (3.4)
Materials from other subject areas			
Almost every day	27 (2.7) 217 (2.6)	25 (6.2) 220 (3.8)!	26 (2.8) 217 (2.9)
Once or twice a week	34 (2.9) 217 (3.0)	27 (7.5) 225 (2.8)!	30 (3.0) 221 (2.3)
Once or twice a month	26 (2.6) 219 (2.5)	34 (4.1) 218 (3.5)	30 (2.5) 214 (2.1)
Never or hardly ever	12 (2.2) 216 (4.0)	13 (2.6) 221 (6.8)!	14 (2.3) 218 (3.3)

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within ± 2 standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). ! Interpret with caution -- the nature of the sample does not allow accurate determination of the variability of this statistic. *** Sample size is insufficient to permit a reliable estimate (fewer than 62 students).

EMPHASIS ON ASPECTS OF READING

Expert readers use rapid decoding, large vocabularies, phonemic awareness, knowledge about text features, and a variety of strategies to aid comprehension and memory.[31] To examine the aspects of reading being emphasized in fourth-grade reading classrooms in Michigan, public-school students' reading teachers were asked to report on the amount of instructional time they devoted to five different aspects of reading: decoding skills, oral reading, vocabulary, comprehension/interpretation, and reading strategies. As shown in Table 16, according to their reading teachers:

- In Michigan, some of the fourth-grade students (14 percent) had reading teachers who devoted almost all of their instructional time in reading to teaching decoding skills; some of the students (17 percent) had reading teachers who devoted almost all of their instructional time in reading to oral reading; less than half (33 percent) had reading teachers who devoted almost all of their instructional time in reading to teaching vocabulary; about three quarters (71 percent) had reading teachers who devoted almost all of their instructional time in reading to comprehension/interpretation; and finally, about half (50 percent) had teachers who devoted almost all of their instructional time in reading to reading strategies.

- By comparison, in Michigan, some of the fourth-grade students (13 percent) had reading teachers who never or hardly ever devoted any instructional time to teaching decoding skills; relatively few of the students (6 percent) had reading teachers who never or hardly ever devoted instructional time to oral reading; relatively few (1 percent) had reading teachers who never or hardly ever devoted their instructional time to teaching vocabulary; none (0 percent) had reading teachers who never or hardly ever devoted their time to comprehension/interpretation; and relatively few (2 percent) had teachers who never or hardly ever devoted their instructional time to reading strategies.

[31] L. Baker and A.L. Brown. "Metacognitive Skills and Reading," in P.D. Pearson, M. Kamil, R. Barr, and P. Mosenthal, Eds., *Handbook of Reading Research (Vol. I)*. (White Plains, NY: Longman, 1984).; R.C. Anderson, E.H. Hiebert, J.A. Scott, and I.A.G. Wilkinson. *Becoming a Nation of Readers: The Report of the Commission on Reading*. (U.S. Department of Education: The National Institute of Education, 1985).; J.A. Dole, G.G. Duffy, L.R. Roehler, and P.D. Pearson. "Moving From the Old to the New: Research on Reading Comprehension Instruction," *Review of Educational Research, 61*. (1991).

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TABLE 16

Teachers' Reports on Emphasis on Aspects of Reading

How much of your instructional time in reading do you devote to each of the following?	Michigan Percentage and Proficiency	Central Percentage and Proficiency	Nation Percentage and Proficiency
Decoding skills			
Almost all of the time	14 (2.2) 209 (4.2)	13 (2.7) 211 (5.1)!	15 (1.7) 207 (2.7)
Some of the time	74 (3.2) 219 (1.8)	74 (3.2) 221 (2.2)	69 (2.5) 218 (1.4)
Never or hardly ever	13 (2.4) 218 (3.2)	12 (3.7) 229 (6.1)!	15 (2.1) 221 (3.2)
Oral reading			
Almost all of the time	17 (2.6) 215 (3.4)	19 (4.3) 217 (4.1)!	24 (2.2) 211 (2.5)
Some of the time	77 (2.7) 217 (1.8)	76 (4.6) 222 (2.3)	70 (2.3) 219 (1.4)
Never or hardly ever	6 (1.6) 229 (7.6)!	5 (1.9) *** (***)	7 (1.4) 226 (5.4)!
Vocabulary			
Almost all of the time	33 (3.4) 213 (2.7)	33 (6.6) 218 (3.0)!	39 (2.8) 214 (1.7)
Some of the time	67 (3.5) 220 (1.8)	67 (6.6) 223 (2.3)	59 (2.8) 220 (1.8)
Never or hardly ever	1 (0.7) *** (***)	0 (0.0) *** (***)	2 (0.8) *** (***)
Comprehension / Interpretation			
Almost all of the time	71 (3.1) 219 (1.7)	68 (4.6) 222 (2.3)	70 (2.4) 218 (1.7)
Some of the time	29 (3.1) 214 (3.2)	32 (4.6) 220 (3.2)	30 (2.4) 216 (1.9)
Never or hardly ever	0 (0.0) *** (***)	0 (0.0) *** (***)	0 (0.0) *** (***)
Reading strategies			
Almost all of the time	50 (3.3) 217 (2.3)	37 (3.1) 222 (2.6)	40 (2.2) 218 (2.2)
Some of the time	49 (3.4) 217 (2.5)	62 (4.0) 221 (2.5)	58 (2.3) 217 (1.8)
Never or hardly ever	2 (1.2) *** (***)	1 (1.4) *** (***)	2 (0.6) 218 (9.7)!

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within ± 2 standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). ! Interpret with caution -- the nature of the sample does not allow accurate determination of the variability of this statistic. *** Sample size is insufficient to permit a reliable estimate (fewer than 62 students).

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INSTRUCTIONAL ACTIVITIES

Teachers can nurture students' reading comprehension ability by providing instructional activities that prepare students for a wide variety of specific reading tasks.[32] These activities support students' understanding of the text being read and model the ways in which students can control the process of building meaning when reading on their own.[33] To provide information about the instructional activities in which fourth-grade public-school students are engaged, the students participating in the Trial State Assessment Program and their reading teachers were asked to report on the frequency with which the teachers asked the students to do a variety of activities. The students' and teachers' responses are presented in the three following sections -- workbooks, worksheets, and writing; discussions and group activities; and time to read.

WORKBOOKS, WORKSHEETS, AND WRITING

Children spend considerably more time completing workbook assignments than they do receiving instruction from their teachers.[34] However, analyses of workbook activities reveal that many of these activities require only a perfunctory level of reading.[35] Few workbook activities require students to do any extended writing. However, opportunities to write have been found to contribute to knowledge of how written and oral language are related, and to growth in phonics, spelling, vocabulary development, and reading comprehension.[36]

To examine the use of workbooks, worksheets, and the reading/writing connection, students and their reading teachers were asked about the frequency with which teachers asked students to work in a reading workbook or on a worksheet, to write about something they had read, or to write in a log or journal about what they had read. Table 17 provides these results.

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[32] S.G. Paris. "Teaching Children to Guide Their Reading and Learning," in Taffy E. Raphael, Ed., *The Contexts of School-Based Literacy*. (New York, NY: Random House, 1984). pp. 115-130.

[33] M.A. Foertsch. *Reading In and Out of School*. (Washington, DC: National Center for Education Statistics, 1992).

[34] R.C. Anderson, E.H. Hiebert, J.A. Scott, and I.A.G. Wilkinson. *Becoming a Nation of Readers: The Report of the Commission on Reading*. (U.S. Department of Education: The National Institute of Education, 1985).

[35] J. Osborn. "The Purposes, Uses, and Contents of Workbooks and Some Guidelines for Publishers," in R.C. Anderson, J. Osborn, and R.J. Tierney (Eds.), *Learning to Read in American Schools: Basal Readers and Content Texts*. (Hillsdale, NJ: Erlbaum, 1984). J. Osborn. "Workbooks: Counting, Matching, and Judging," in J. Osborn, P.T. Wilson, and R.C. Anderson (Eds.), *Reading Education: Foundations for a Literate America*. (Lexington, MA: Lexington Books, 1985).

[36] R.J. Tierney and M. Leys. "What is the Value of Connecting Reading and Writing?" in B. Peterson, Ed., *Convergences: Essays on Reading, Writing, and Literacy*. (Urbana, IL: National Council of Teachers of English, 1986).

According to the fourth-grade students:

- About half of the fourth-grade students in Michigan (50 percent) were asked to work in a reading workbook or on a worksheet almost every day while about one quarter (22 percent) were asked to work in a reading workbook or on a worksheet less than weekly.

- In Michigan, 21 percent of the students were asked to write about something they have read almost every day; 46 percent were asked to do this less than weekly.

- Some of the students in Michigan (18 percent) were asked to write in a log or journal about what they have read almost every day; more than half (61 percent) were given time to do this activity less than weekly.

And, according to their reading teachers:

- Some of the fourth-grade students in Michigan (19 percent) were asked to work in a reading workbook or on a worksheet almost every day while about one quarter (21 percent) were asked to do these activities less than weekly.

- In Michigan, 24 percent of the students were asked to write about something they have read almost every day; 26 percent were asked to write about something they have read less than weekly.

- Some of the students in Michigan (16 percent) were asked to write in a log or journal about what they have read almost every day; about half (55 percent) were given time to write in a log or journal less than weekly.

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TABLE 17

Teachers' and Students' Reports on Workbooks, Worksheets, and Writing

How often do you (does your teacher) do each of the following as a part of reading instruction?	Michigan		Central		Nation	
	Teacher	Student	Teacher	Student	Teacher	Student
	Percentage and Proficiency		Percentage and Proficiency		Percentage and Proficiency	
Ask students to work in a reading workbook or on a worksheet						
Almost every day	19 (2.7) 211 (2.9)	50 (1.9) 220 (1.7)	27 (6.3) 219 (3.7)!	51 (3.5) 220 (2.1)	31 (2.7) 214 (1.9)	50 (1.6) 218 (1.1)
At least once a week	60 (3.7) 217 (2.1)	28 (1.2) 217 (1.8)	49 (9.3) 220 (3.8)!	27 (1.3) 223 (2.0)	48 (3.4) 217 (1.8)	29 (1.0) 219 (1.8)
Less than weekly	21 (3.5) 223 (2.3)	22 (1.4) 214 (2.1)	25 (5.2) 225 (3.2)	22 (2.9) 215 (1.6)	22 (2.8) 222 (3.4)	21 (1.1) 212 (1.8)
Ask students to write about something they have read						
Almost every day	24 (3.0) 218 (3.2)	21 (1.2) 210 (1.9)	21 (3.5) 223 (2.8)	21 (1.4) 213 (3.0)	25 (1.8) 221 (2.8)	23 (0.8) 211 (1.6)
At least once a week	50 (3.7) 219 (1.8)	33 (1.1) 217 (1.9)	54 (5.7) 221 (2.6)	34 (2.1) 219 (1.6)	49 (2.6) 217 (1.9)	34 (1.0) 218 (1.3)
Less than weekly	26 (3.4) 214 (4.0)	46 (1.5) 222 (1.7)	25 (5.7) 220 (4.1)!	45 (2.4) 222 (2.2)	26 (2.5) 214 (2.5)	43 (1.2) 219 (1.2)
Ask students to write in a log or journal about what they have read						
Almost every day	16 (2.6) 215 (4.3)	18 (1.5) 212 (2.8)	18 (5.3) 216 (5.2)!	20 (2.6) 214 (3.3)	21 (2.3) 219 (3.1)	21 (1.5) 213 (2.1)
At least once a week	29 (3.2) 219 (2.5)	21 (1.2) 213 (2.2)	42 (5.7) 222 (2.9)	22 (1.9) 217 (2.5)	31 (2.3) 219 (2.0)	22 (1.0) 214 (2.1)
Less than weekly	55 (3.7) 217 (2.1)	61 (2.1) 222 (1.6)	42 (7.1) 222 (3.4)	58 (3.1) 223 (1.9)	48 (2.8) 216 (1.9)	57 (1.6) 220 (1.2)

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within ± 2 standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). ! Interpret with caution -- the nature of the sample does not allow accurate determination of the variability of this statistic.

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DISCUSSION AND GROUP ACTIVITIES

Discussion-related activities are an important part of classroom learning, because they provide opportunities for students to ask questions about things they do not understand or want to know more about. A lack of emphasis on group work or the sharing of different interpretations limits opportunities students have for discovering that their reactions or interpretations may not be the only ones justified by the text.[37]

To examine the prevalence of discussion-related activities, students and their reading teachers were asked about how frequently the students were asked to discuss new or difficult vocabulary, to talk with each other about what they have read, or to do a group activity or project about what they have read. As shown in Table 18:

According to the fourth-grade students:

- Less than half of the fourth-grade students in Michigan (31 percent) were asked to discuss new or difficult vocabulary almost every day while about one quarter (29 percent) were asked to do this activity less than weekly.
- In Michigan, 16 percent of the students were asked to talk with each other about what they have read almost every day; 57 percent were asked to do this less than weekly.
- Some of the students in Michigan (11 percent) were asked to do a group activity or project about what they have read almost every day; more than half (65 percent) were given time to do this activity less than weekly.

And, according to their reading teachers:

- About half of the fourth-grade students in Michigan (50 percent) were asked to discuss new or difficult vocabulary almost every day while relatively few (1 percent) were asked to do this activity less than weekly.
- In Michigan, 28 percent of the students were asked to talk with each other about what they have read almost every day; 22 percent were asked to do this less than weekly.
- Relatively few of the students in Michigan (3 percent) were asked to do a group activity or project about what they have read almost every day; about three quarters (79 percent) were given time to do this activity less than weekly.

[37] J. Moffett and B. Wagner. "Student Centered Reading Activities," *English Journal, 80.* 1991.

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TABLE 18

Teachers' and Students' Reports on the Frequency of Discussion and Group Activities

How often do you (does your teacher) do each of the following as a part of reading instruction?	Michigan		Central		Nation	
	Teacher	Student	Teacher	Student	Teacher	Student
	Percentage and Proficiency		Percentage and Proficiency		Percentage and Proficiency	
Discuss new or difficult vocabulary						
Almost every day	50 (4.4) 217 (2.0)	31 (1.2) 221 (1.7)	49 (4.7) 220 (2.3)	28 (1.1) 219 (2.4)	49 (2.4) 215 (1.8)	31 (0.9) 216 (1.5)
At least once a week	49 (4.3) 218 (2.5)	40 (1.0) 219 (1.8)	51 (4.7) 222 (3.3)	40 (2.1) 224 (2.6)	49 (2.3) 219 (1.9)	39 (1.0) 221 (1.3)
Less than weekly	1 (0.5) *** (**.*)	29 (1.1) 214 (2.1)	0 (0.0) *** (**.*)	32 (1.9) 215 (2.1)	2 (0.8) 219 (7.8)!	30 (0.8) 210 (1.3)
Ask students to talk to each other about what they have read						
Almost every day	28 (3.2) 216 (3.3)	16 (0.8) 209 (2.6)	22 (4.2) 223 (3.5)!	16 (2.0) 212 (3.6)	32 (2.6) 218 (2.3)	17 (0.8) 208 (2.0)
At least once a week	50 (3.2) 220 (1.8)	27 (1.0) 216 (1.7)	55 (6.8) 222 (3.0)	27 (1.7) 220 (3.1)	49 (3.0) 220 (1.8)	28 (0.7) 216 (1.8)
Less than weekly	22 (2.7) 213 (4.2)	57 (1.2) 221 (1.7)	22 (6.8) 216 (4.1)!	57 (1.6) 221 (2.4)	19 (2.7) 214 (3.0)	55 (0.9) 219 (1.3)
Ask students to do a group activity or project about what they have read						
Almost every day	3 (1.1) 208 (6.7)!	11 (0.7) 202 (2.5)	4 (1.6) *** (**.*)	12 (1.3) 206 (5.7)	3 (0.8) 221 (4.6)!	12 (0.5) 200 (2.3)
At least once a week	19 (2.7) 221 (4.1)	25 (1.0) 211 (2.1)	26 (6.0) 224 (3.2)!	26 (0.9) 219 (2.6)	21 (2.4) 219 (2.4)	24 (0.7) 213 (1.7)
Less than weekly	79 (2.8) 217 (1.7)	65 (1.3) 223 (1.6)	70 (6.5) 220 (2.4)	62 (1.3) 222 (1.5)	76 (2.5) 217 (1.5)	64 (0.8) 221 (1.0)

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within ± 2 standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). ! Interpret with caution -- the nature of the sample does not allow accurate determination of the variability of this statistic. *** Sample size is insufficient to permit a reliable estimate (fewer than 62 students).

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TIME TO READ

Independent reading is probably a major source of reading fluency. In contrast to completing workbook pages or computer drills, the reading of books provides practice in the whole act of reading. However, the amount of time children spend reading in the average classroom, as well as the number of pages read for school and homework, has been found to be negligible.[38]

Both the fourth-grade students and their reading teachers were questioned about the frequency with which the teachers asked the students to read aloud or read silently, or gave the students time to read books of their own choosing. Table 19 provides this information.

According to the fourth-grade students:

- In Michigan, 48 percent of the students were asked to read aloud almost every day, while 25 percent were asked to read aloud less than weekly.
- About three quarters of the fourth-grade students in Michigan (70 percent) were asked to read silently almost every day; relatively few (10 percent) were asked to read silently less than weekly.
- About half of the students in Michigan (55 percent) were given time to read books of their own choosing almost every day; some (18 percent) were given time to read books they had chosen less than weekly.

And, according to their reading teachers:

- In Michigan, 41 percent of the students were asked to read aloud almost every day, while 7 percent were asked to read aloud less than weekly.
- About three quarters of the fourth-grade students in Michigan (71 percent) were asked to read silently almost every day; relatively few (2 percent) were asked to read silently less than weekly.
- About three quarters of the students in Michigan (70 percent) were given time to read books of their own choosing almost every day; relatively few (8 percent) were given time to read books they had chosen less than weekly.

[38] R.C. Anderson, E.H. Hiebert, J.A. Scott, and I.A.G. Wilkinson. *Becoming a Nation of Readers: The Report of the Commission on Reading.* (U.S. Department of Education: The National Institute of Education, 1985). M.A. Foertsch. *Reading In and Out of School.* (Washington, DC: National Center for Education Statistics, 1992).

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TABLE 19 | **Teachers' and Students' Reports on the Frequency of Reading in Class**

How often do you (does your teacher) do each of the following as a part of reading instruction?	Michigan Percentage and Proficiency		Central Percentage and Proficiency		Nation Percentage and Proficiency	
	Teacher	Student	Teacher	Student	Teacher	Student
Ask students to read aloud						
Almost every day	41 (4.1) 214 (2.6)	48 (1.6) 220 (1.8)	43 (4.6) 223 (2.7)	47 (3.8) 222 (2.0)	47 (2.9) 213 (1.6)	46 (1.3) 217 (1.2)
At least once a week	52 (4.0) 219 (2.0)	27 (1.1) 219 (1.7)	53 (4.3) 220 (3.6)	25 (3.1) 224 (3.4)	45 (2.5) 221 (1.8)	27 (1.0) 220 (1.8)
Less than weekly	7 (2.0) 229 (4.6)!	25 (1.2) 213 (2.4)	4 (1.1) *** (** *)	27 (2.2) 213 (2.3)	8 (1.7) 224 (4.2)!	27 (1.0) 214 (1.6)
Ask students to read silently						
Almost every day	71 (3.1) 218 (1.9)	70 (1.8) 222 (1.6)	75 (3.7) 222 (2.8)	68 (1.7) 225 (1.9)	75 (2.3) 219 (1.8)	67 (1.1) 222 (1.3)
At least once a week	27 (2.9) 217 (2.0)	20 (1.2) 215 (2.1)	24 (3.6) 217 (2.7)	22 (1.7) 215 (4.0)	23 (2.1) 213 (2.3)	22 (0.9) 214 (1.6)
Less than weekly	2 (0.9) *** (** *)	10 (0.8) 200 (2.6)	1 (0.6) *** (** *)	10 (1.0) 197 (5.2)	2 (0.5) 208 (5.6)!	11 (0.6) 193 (2.1)
Give students time to read books they have chosen for themselves						
Almost every day	70 (3.5) 219 (2.0)	55 (1.4) 224 (1.8)	71 (4.2) 225 (2.4)	57 (1.9) 224 (1.9)	68 (2.7) 220 (1.7)	55 (1.5) 223 (1.3)
At least once a week	23 (3.1) 213 (3.6)	27 (1.1) 214 (1.4)	21 (3.1) 216 (4.8)	28 (2.2) 220 (3.4)	25 (2.3) 213 (2.2)	27 (1.1) 215 (1.7)
Less than weekly	8 (2.1) 214 (3.8)!	18 (0.9) 206 (2.9)	8 (2.9) 205 (5.8)!	15 (1.5) 203 (3.4)	8 (1.2) 207 (5.1)	18 (0.8) 203 (1.4)

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within ± 2 standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). ! Interpret with caution -- the nature of the sample does not allow accurate determination of the variability of this statistic. *** Sample size is insufficient to permit a reliable estimate (fewer than 62 students).

READING AND USE OF LIBRARIES

Analysis of schools that have been successful in promoting independent reading suggest that one of the keys is ready access to books.[39] Libraries can be a major resource in developing students' reading abilities because students can use them as quiet places to read as well as to check out books and to obtain reference information. Thus, to examine library use, students' reading teachers were asked about the frequency with which they sent or took their reading classes to the library and assigned students to read a book from the library.

[39] R.C. Anderson, E.H. Hiebert, J.A. Scott, and I.A.G. Wilkinson. *Becoming a Nation of Readers: The Report of the Commission on Reading*. (U.S. Department of Education: The National Institute of Education, 1985).

Table 20 and Table A20 (Page 180) in the Data Appendix provide the results from teachers' reports about the frequency of sending fourth-grade students to the library:

- Many of the students in Michigan (84 percent) had reading teachers who sent or took the class to the library at least once a week; relatively few (6 percent) had reading teachers who never or hardly ever sent or took the class to the library.

- In Michigan, 100 percent of the students attending schools in advantaged urban areas, 71 percent of the students in disadvantaged urban areas, 97 percent of the students in extreme rural areas, and 89 percent of the students in areas classified as "other" had reading teachers who sent or took the class to the library at least once a week.

- By contrast, 0 percent of the students attending schools in advantaged urban areas, 8 percent of the students in disadvantaged urban areas, 0 percent of the students in extreme rural areas, and 4 percent of the students in areas classified as "other" in Michigan had reading teachers who never or hardly ever sent or took the class to the library.

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TABLE 20

Teachers' Reports on Sending Students to the Library

How often do you send or take the class to the library?	Michigan Percentage and Proficiency	Central Percentage and Proficiency	Nation Percentage and Proficiency
At least once a week	84 (2.9) 221 (1.4)	93 (2.3) 222 (2.0)	85 (2.7) 219 (1.5)
Once or twice a month	5 (1.4) 210 (7.4)!	2 (1.1) *** (** *)	9 (1.9) 208 (4.2)!
Never or hardly ever	6 (2.0) 199 (5.2)!	5 (1.8) *** (** *)	5 (1.6) 209 (4.4)!

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within ± 2 standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). Percentages may not add to 100 because a very small percentage of teachers reported that there was no library at their school. ! Interpret with caution -- the nature of the sample does not allow accurate determination of the variability of this statistic. *** Sample size is insufficient to permit a reliable estimate (fewer than 62 students).

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Table 21 and Table A21 (Page 182) in the Data Appendix provide results about teachers' reports on the frequency of assigning students to read a book from the library:

- About half of the fourth graders in Michigan (49 percent) had reading teachers who assigned reading a book from the library at least once a week; some (16 percent) had reading teachers who never or hardly ever assigned reading library books.

- About half of the students attending schools in advantaged urban areas (46 percent), about half of the students in disadvantaged urban areas (50 percent), about three quarters of the students in extreme rural areas (78 percent), and about half of the students in areas classified as "other" (48 percent) in Michigan had reading teachers who assigned students to read a book from the library at least once a week.

- By comparison, some of the students attending schools in advantaged urban areas (17 percent), some of the students in disadvantaged urban areas (11 percent), none of the students in extreme rural areas (0 percent), and some of the students in areas classified as "other" (15 percent) in Michigan had reading teachers who never or hardly ever assigned students to read a book from the library.

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TABLE 21 | **Teachers' Reports on Assigning Books from the Library**

How often do you assign students to read a book from the library?	Michigan Percentage and Proficiency	Central Percentage and Proficiency	Nation Percentage and Proficiency
At least once a week	49 (3.5) 220 (1.8)	57 (5.6) 222 (2.4)	50 (2.8) 217 (1.6)
Once or twice a month	35 (3.0) 217 (2.6)	27 (5.8) 222 (2.4)!	31 (2.7) 220 (2.2)
Never or hardly ever	16 (2.8) 210 (5.8)	17 (3.6) 214 (5.1)!	19 (2.3) 214 (2.6)

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within ± 2 standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). Percentages may not add to 100 because a very small percentage of teachers reported that there was no library at their school. ! Interpret with caution -- the nature of the sample does not allow accurate determination of the variability of this statistic.

ASSESSING PROGRESS IN READING

According to *Becoming a Nation of Readers*, standardized tests do not provide a deep assessment of reading comprehension and should be supplemented with observations of reading fluency, critical analysis of lengthy reading selections, and measures of the amount of independent reading and writing done by children.[40]

Fourth-grade students' reading teachers were asked a series of individual questions to report on how often they used different types of assessment measures -- including multiple-choice tests, longer extended constructed-response questions, and reading portfolios -- to assess student progress in reading. The use of reading portfolios is a relatively new practice and may not be widely used in many schools as an assessment tool. From Table 22:

- Relatively few of the fourth-grade students in Michigan (9 percent) were assessed with multiple-choice tests once or twice a week while about one quarter (23 percent) were never or hardly ever assessed in this manner.
- In Michigan, 43 percent of the students were asked to write paragraphs about what they had read once or twice a week; 6 percent were never or hardly ever assessed using these extended constructed-response questions.
- Relatively few of the students in Michigan (8 percent) were assessed by using reading portfolios about once or twice a week; more than half (58 percent) were never or hardly ever asked to do this activity.

[40] R.C. Anderson, E.H. Hiebert, J.A. Scott, and I.A.G. Wilkinson. *Becoming a Nation of Readers: The Report of the Commission on Reading*. (U.S. Department of Education: The National Institute of Education, 1985).

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TABLE 22

Teachers' Reports on Assessing Progress in Reading

How often do you use each of the following to assess student progress in reading?	Michigan Percentage and Proficiency	Central Percentage and Proficiency	Nation Percentage and Proficiency
Multiple-choice tests			
Once or twice a week	9 (2.4) 206 (7.0)!	11 (4.4) 219 (5.6)!	14 (2.1) 209 (3.2)
Once or twice a month	48 (4.1) 217 (2.6)	51 (7.1) 222 (3.4)	49 (3.3) 218 (1.7)
Once or twice a year	21 (3.2) 219 (2.7)	19 (4.9) 224 (3.5)!	15 (2.2) 221 (2.5)
Never or hardly ever	23 (3.0) 221 (2.3)	19 (7.3) 217 (4.4)!	21 (3.4) 219 (3.5)
Writing paragraphs about what they have read			
Once or twice a week	43 (3.5) 219 (2.3)	49 (5.2) 223 (3.4)	46 (2.5) 220 (2.3)
Once or twice a month	42 (3.9) 216 (2.4)	38 (4.9) 220 (2.6)	39 (2.6) 218 (1.6)
Once or twice a year	9 (1.7) 215 (5.6)!	9 (2.7) 216 (4.7)!	8 (1.4) 212 (3.9)
Never or hardly ever	6 (1.4) 221 (5.3)!	4 (2.4) *** (***)	6 (1.3) 207 (4.5)!
Reading portfolios			
Once or twice a week	8 (2.0) 222 (7.3)!	14 (3.1) 216 (5.0)!	14 (1.8) 218 (4.3)
Once or twice a month	18 (2.8) 218 (3.2)	30 (5.1) 224 (4.0)	25 (2.3) 222 (2.4)
Once or twice a year	16 (2.5) 217 (3.3)	10 (4.8) 225 (6.6)!	13 (2.3) 217 (3.8)
Never or hardly ever	58 (4.1) 216 (2.3)	46 (6.6) 220 (2.5)	47 (3.3) 215 (1.5)

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within ± 2 standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). ! Interpret with caution -- the nature of the sample does not allow accurate determination of the variability of this statistic. *** Sample size is insufficient to permit a reliable estimate (fewer than 62 students).

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SUMMARY

For instruction to be most effective, subject matter, teaching materials and activities, and the instructional context must be carefully orchestrated to create a meaningful and motivating learning experience.[41] Because classroom instructional time is typically limited, teachers need to make the best possible use of what is known about effective instructional delivery practices and resources.

- In Michigan, 51 percent of the fourth-grade public-school students had reading teachers who used both basal and trade books, 37 percent had reading teachers who primarily used basal readers, and 8 percent had reading teachers who primarily used trade books.

- In Michigan, 7 percent of the fourth-grade students had reading teachers who reported getting all of the resources they needed, while 48 percent of the students were taught by teachers who got only some or none of the resources they needed. Across the nation, these figures were 11 percent and 39 percent, respectively.

- In Michigan, 2 percent of the fourth-grade students had reading teachers who used children's newspapers and/or magazines almost every day; 7 percent of the students had reading teachers who used reading kits almost every day; 3 percent had reading teachers who used computer software for reading instruction almost every day; 35 percent had reading teachers who used a variety of books almost every day; and, finally, 27 percent had teachers who used materials from other subject areas almost every day.

- In Michigan, 14 percent of the fourth-grade students had reading teachers who devoted almost all of their instructional time in reading to teaching decoding skills; 17 percent of the students had reading teachers who devoted almost all of their instructional time in reading to oral reading; 33 percent had reading teachers who devoted almost all of their instructional time in reading to teaching vocabulary; 71 percent had reading teachers who devoted almost all of their instructional time in reading to comprehension/interpretation; and finally, 50 percent had teachers who devoted almost all of their instructional time in reading to reading strategies.

- Many of the students in Michigan (84 percent) had reading teachers who sent or took the class to the library at least once a week; relatively few (6 percent) had reading teachers who never or hardly ever sent or took the class to the library.

- In Michigan, 49 percent of the students had reading teachers who assigned reading a book from the library at least once a week; 16 percent had reading teachers who never or hardly ever assigned reading library books.

- In Michigan, 43 percent of the students were asked to write paragraphs about what they had read once or twice a week; 6 percent were never or hardly ever assessed using these extended constructed-response questions.

[41] J.I. Goodlad. *A Place Called School: Prospects for the Future.* (New York, NY: McGraw-Hill, 1984).

CHAPTER 5

Who Is Teaching Reading to Fourth Graders?

PREPARATION AND EXPERIENCE

Many states have begun to raise teacher certification standards and strengthen teacher training programs. In curriculum areas requiring special attention and improvement, such as reading, it is particularly important to have well-qualified teachers. To provide information about the staff who are teaching reading to fourth-grade students in public schools, the Trial State Assessment gathered details on the teachers' educational backgrounds.

Table 23 summarizes teacher responses to questions concerning their academic preparation, certification, and their years of elementary or secondary teaching experience:

- In Michigan, 56 percent of the students were being taught by reading teachers who reported having at least a master's or education specialist's degree. This compares with 46 percent for students across the nation.

- About three quarters of the students (74 percent) had reading teachers who had the highest level of teaching certification that is recognized by Michigan. This is higher than the figure for the nation, where more than half of the students (57 percent) were taught by reading teachers who were certified at the highest level available in their states.

- In Michigan, 40 percent of the fourth-grade public-school students were being taught reading by teachers who had an undergraduate major in English, reading, and/or language arts. By comparison, 22 percent of the students across the nation had reading teachers with the same major.

- About one quarter of the fourth-grade public-school students in Michigan (26 percent) were taught reading by teachers who had a graduate major in English, reading, and/or language arts. Across the nation, some (18 percent) of the students were taught by teachers who majored in English, reading, and/or language arts in graduate school.

- In Michigan, 73 percent of the fourth-grade public-school students were being taught reading by teachers who have taught at either the elementary or secondary level for at least 11 years (including part-time teaching). Across the nation, 69 percent of the students had reading teachers with at least 11 years' experience.

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TABLE 23

Teachers' Reports on Their Fields of Study and Teaching Experience

	Michigan	Central	Nation
What is the highest academic degree you hold?	Percentage	Percentage	Percentage
Bachelor's degree	44 (3.6)	56 (3.4)	54 (2.7)
Master's or specialist's degree	56 (3.6)	43 (3.7)	45 (2.8)
Doctorate or professional degree	0 (0.2)	1 (1.0)	1 (0.4)
What type of teaching certification do you have that is recognized by Michigan?			
None, temporary, probational, provisional, or emergency	10 (1.8)	5 (2.0)	7 (1.2)
Regular certification but less than the highest available	16 (2.8)	31 (4.5)	37 (2.7)
Highest certification available	74 (3.1)	64 (5.1)	57 (2.7)
What was your undergraduate major?			
English, reading, and/or language arts	40 (3.1)	24 (7.6)	22 (2.9)
Education	49 (2.8)	74 (7.6)	69 (3.5)
Other	12 (2.3)	1 (0.7)	9 (1.6)
What was your graduate major?			
English, reading, and/or language arts	26 (2.7)	24 (6.2)	18 (2.3)
Education	52 (3.8)	62 (6.4)	54 (3.2)
Other or no graduate-level study	22 (3.0)	14 (3.6)	28 (2.6)
How many years in total have you taught at either the elementary or secondary level?			
2 years or less	4 (1.3)	5 (2.9)	7 (1.4)
3-5 years	8 (1.5)	10 (3.1)	13 (1.9)
6-10 years	15 (2.6)	15 (2.8)	12 (1.4)
11-24 years	50 (3.5)	43 (4.4)	51 (2.4)
25 years or more	24 (2.3)	27 (3.8)	18 (1.7)

The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within ± 2 standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details).

PROFESSIONAL DEVELOPMENT

Teachers also were asked about the amount of time they spent on in-service education dedicated to reading or the teaching of reading during the year immediately preceding the Trial State Assessment (Table 24):

- In Michigan, 26 percent of the fourth-grade public-school students had reading teachers who spent at least 16 hours on in-service education dedicated to reading or the teaching of reading. Across the nation, 31 percent of the students had reading teachers who spent at least that much time on similar types of in-service education.

- In Michigan, 9 percent of the students had reading teachers who spent no time on in-service education devoted to reading or the teaching of reading. Nationally, 9 percent of the students had reading teachers who spent no time on similar in-service education.

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TABLE 24 | **Teachers' Reports on Their In-Service Education**

During the last year, how much time in total have you spent on in-service education in reading or the teaching of reading?	Michigan	Central	Nation
	Percentage	Percentage	Percentage
None	9 (2.3)	11 (3.1)	9 (1.4)
One to 15 hours	65 (3.4)	54 (6.0)	60 (2.9)
16 hours or more	26 (3.0)	36 (6.5)	31 (2.6)

The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within ± 2 standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details).

Finally, teachers were asked to report on whether they had training in specific aspects of reading during the past five years, either in college courses or through in-service education. As indicated in Table 25:

- In Michigan, 89 percent of the fourth-grade public-school students had reading teachers who reported that they had training in teaching critical thinking skills; 89 percent had reading teachers who reported having training in combining reading and writing; 81 percent had reading teachers who reported having training in the whole language approach to teaching reading; and 72 percent had reading teachers who reported having training in reading assessment.

- Across the nation, 83 percent of the fourth-grade public-school students had reading teachers who reported that they had training in teaching critical thinking skills; 89 percent had reading teachers who reported having training in combining reading and writing; 80 percent had reading teachers who reported having training in the whole language approach to teaching reading; and 75 percent had reading teachers who reported having training in reading assessment.

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TABLE 25 | **Teachers' Reports on Training in Specific Reading Areas**

Percentage of students whose teachers have had training in each of the following areas during the past five years	Michigan Percentage	Central Percentage	Nation Percentage
Teaching critical thinking skills	89 (2.1)	78 (4.8)	83 (1.8)
Combining reading and writing	89 (2.0)	88 (4.0)	89 (1.7)
The whole language approach to teaching reading	81 (3.2)	85 (5.0)	80 (2.0)
Reading assessment	72 (3.7)	73 (3.7)	75 (1.8)

The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within ± 2 standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details).

SUMMARY

In recent years, accountability for educational outcomes has become an issue of increasing importance to federal, state, and local governments. There is no guarantee that individuals with a specific set of credentials will be effective teachers; however, it is likely that relevant training and experience do contribute to better teaching.

The information about teachers' educational backgrounds and experience reveals that:

- In Michigan, 56 percent of the students were being taught by reading teachers who reported having at least a master's or education specialist's degree. This compares with 46 percent for students across the nation.

- About three quarters of the students (74 percent) had reading teachers who had the highest level of teaching certification that is recognized by Michigan. This is higher than the figure for the nation, where more than half of the students (57 percent) were taught by reading teachers who were certified at the highest level available in their states.

- In Michigan, 40 percent of the fourth-grade public-school students were being taught reading by teachers who had an undergraduate major in English, reading, and/or language arts. By comparison, 22 percent of the students across the nation had reading teachers with the same major.

- About one quarter of the fourth-grade public-school students in Michigan (26 percent) were taught reading by teachers who had a graduate major in English, reading, and/or language arts. Across the nation, some (18 percent) of the students were taught by teachers who majored in English, reading, and/or language arts in graduate school.

- In Michigan, 73 percent of the fourth-grade public-school students were being taught reading by teachers who have taught at either the elementary or secondary level for at least 11 years (including part-time teaching). Across the nation, 69 percent of the students had reading teachers with at least 11 years' experience.

- In Michigan, 26 percent of the fourth-grade public-school students had teachers who spent at least 16 hours on in-service education dedicated to reading or the teaching of reading. Across the nation, 31 percent of the students had teachers who spent at least that much time on similar types of in-service education. By comparison, in Michigan, 9 percent of the students had reading teachers who spent no time on in-service education devoted to reading or the teaching of reading. Nationally, 9 percent of the students had reading teachers who spent no time on similar in-service education.

- In Michigan, 89 percent of the fourth-grade public-school students had reading teachers who reported that they had training in teaching critical thinking skills; 89 percent had reading teachers who reported having training in combining reading and writing; 81 percent had reading teachers who reported having training in the whole language approach to teaching reading; and 72 percent had reading teachers who reported having training in reading assessment.

CHAPTER 6

Students' Home Support for Literacy

Home and attitudinal variables affect students' reading achievement.[42] In addition, good readers usually interact with a wide variety of materials on their own, and share their experiences with family and friends.[43] Thus, it is important to understand students' attitudes toward reading, the extent to which students read on their own, and the degree of home support that is available for reading. To examine these factors, students participating in the Trial State Assessment were asked a series of questions about themselves, their parents or guardians, and home factors related to reading.

READING OUTSIDE OF SCHOOL

Because relatively small percentages of students appear to devote little or no time to leisure reading,[44] students participating in the Trial State Assessment were asked to report on how often they read for fun on their own time (Table 26). They also were asked about the number of books they have read on their own outside of school during the month preceding the assessment (Table 27), and how often they have taken books out of the school library or public library for their own enjoyment (Table 28).

[42] J.T. Guthrie and V. Greaney. "Literacy Acts," in R. Barr, M. Kamil, P. Mosenthal, and P.D. Pearson, Eds., *Handbook of Reading Research: Volume II.* (New York, NY: Longman, 1991).

[43] M.A. Foertsch. *Reading In and Out of School.* (Washington, DC: National Center for Education Statistics, 1992).

[44] L.G. Fielding, P.T. Wilson, R.C. Anderson. "A New Focus on Free Reading: The Role of Trade Books in Reading and Instruction," in T. Raphael and R. Reynolds, Eds., *Contexts of Literacy.* (New York: Longman, 1990); V. Greandy. "Factors Related to Amount and Type of Leisure-time Reading," *Reading Research Quarterly, 15(80).* (1980). pp. 337-357.

The results are provided in Tables 26 and A26 (Page 190) regarding how often students reported reading for fun on their own time.

- In Michigan, 44 percent of the fourth-grade public-school students reported that they read for fun almost every day while 10 percent never or hardly ever did so.
- In Michigan, a smaller percentage of boys than girls read for fun almost every day; a greater percentage of boys than girls never or hardly ever did.
- About half of the White students (45 percent), less than half of the Black students (41 percent), and less than half of the Hispanic students (40 percent) in Michigan read for fun almost every day.
- Relatively few of the White students (10 percent), some of the Black students (11 percent), and relatively few of the Hispanic students (10 percent) in Michigan never or hardly ever read for fun.

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TABLE 26 | **Students' Reports on Reading for Fun**

How often do you read for fun on your own time?	Michigan Percentage and Proficiency	Central Percentage and Proficiency	Nation Percentage and Proficiency
Almost every day	44 (1.2) 224 (1.9)	42 (1.7) 227 (1.8)	43 (1.0) 223 (1.3)
Once or twice a week	34 (1.1) 216 (1.6)	33 (1.6) 220 (2.3)	32 (0.9) 218 (1.3)
Once or twice a month	12 (0.7) 209 (2.4)	11 (0.9) 211 (3.7)	12 (0.5) 209 (1.8)
Never or hardly ever	10 (0.6) 207 (3.0)	14 (1.2) 204 (3.5)	13 (0.6) 199 (2.0)

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within ± 2 standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details).

Concerning how many books were read by fourth-grade students in Michigan, Table 27 and Table A27 (Page 192) in the Data Appendix reveal that:

- Relatively few of the fourth-grade public-school students (6 percent) did not read any books on their own outside of school in the month preceding the assessment; less than half (42 percent) read five or more books during the same period.
- A smaller percentage of males than females read five or more books on their own outside of school during the month prior to the assessment; a greater percentage of males than females read no books.
- Less than half of the White students (41 percent), less than half of the Black students (42 percent), and about half of the Hispanic students (49 percent) read five or more books on their own outside of school.
- Relatively few of the White students (6 percent), some of the Black students (11 percent), and relatively few of the Hispanic students (6 percent) read no books on their own outside of school.
- Average reading proficiency was lowest for students who read no books on their own outside of school during the month prior to the assessment.

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TABLE 27

Students' Reports on the Number of Books Read Outside of School in the Past Month

During the past month, how many books have you read on your own outside of school?	Michigan Percentage and Proficiency	Central Percentage and Proficiency	Nation Percentage and Proficiency
None	6 (0.6) 200 (3.5)	8 (1.0) 202 (5.3)	7 (0.4) 196 (2.6)
One or two	27 (1.1) 217 (2.1)	25 (1.5) 218 (2.4)	25 (0.8) 215 (1.6)
Three or four	24 (1.0) 219 (2.0)	25 (1.9) 220 (2.8)	24 (0.7) 220 (1.6)
Five or more	42 (1.4) 220 (1.7)	43 (2.0) 222 (1.9)	44 (1.0) 218 (1.3)

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within ± 2 standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details).

Finally, regarding the frequency of taking books out of the school library or public library for their own enjoyment, from Table 28 and Table A28 (Page 194) in the Data Appendix:

- In Michigan, 15 percent of the fourth-grade public-school students took books out of the library for their own enjoyment almost every day; 15 percent never or hardly ever did so. Across the nation, 15 percent took books out of the library for their own enjoyment almost every day and 15 percent never or hardly ever did so.

- About the same percentage of fourth-grade females (16 percent) as males (15 percent) in Michigan took books out of the library for their own enjoyment almost every day.

- A somewhat smaller percentage of fourth-grade females (14 percent) than males (17 percent) in Michigan never or hardly ever took books out of the library for their own enjoyment.

- Some of the White students (14 percent), some of the Black students (18 percent), and some of the Hispanic students (19 percent) in Michigan took books out of the library for their own enjoyment almost every day.

- Some of the White students (13 percent), about one quarter of the Black students (27 percent), and some of the Hispanic students (14 percent) in Michigan never or hardly ever took books out of the library for their own enjoyment.

- Students in Michigan who took books out of the library almost every day had about the same* average reading proficiency as students who never or hardly ever took books out of the library for their own enjoyment.

* Recall that "about the same" means that the difference between these two groups, although it may appear large, is not statistically significant.

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TABLE 28 | **Students' Reports on Taking Books Out of the Library**

How often do you take books out of the school library or public library for your own enjoyment?	Michigan Percentage and Proficiency	Central Percentage and Proficiency	Nation Percentage and Proficiency
Almost every day	15 (0.8) 212 (2.5)	14 (1.1) 217 (3.7)	15 (0.6) 212 (1.7)
Once or twice a week	48 (1.3) 222 (1.6)	52 (1.6) 224 (1.7)	48 (0.9) 220 (1.3)
Once or twice a month	21 (1.1) 221 (2.2)	21 (1.3) 220 (2.0)	22 (0.8) 220 (1.4)
Never or hardly ever	15 (0.8) 206 (2.7)	14 (1.2) 205 (4.4)	15 (0.7) 203 (1.8)

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within ± 2 standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details).

READING IN THE HOME

The presence of parents or siblings who model and share reading, and the availability of reading materials in the home are critical factors in the development of students' appreciation of reading and, ultimately, their comprehension and fluency.[45] Children's reading materials tend to consist of what is readily available to them.[46] Students participating in the Trial State Assessment were asked about the availability of newspapers, magazines, books, and an encyclopedia at home. They were also asked about the frequency with which they discussed things they read with friends and family.

[45] D. Taylor. *Family Literacy: Young Children Learning to Read and Write.* (Exeter, NH: Heinemann Educational Books, 1983).

[46] J. Ingham. *Books and Reading Development: The Bradford Book Flood Experiment.* (London: Heinemann Educational Books, 1981).

Average reading proficiency associated with having zero to two, three, or four of these types of materials in the home is shown in Table 29 and Table A29 (Page 196) in the Data Appendix. The data for Michigan reveal that:

- Students who had all four of these types of materials in the home showed a higher reading proficiency than did students with zero to two types of materials. Across the nation, students who had all four types of materials showed a higher reading proficiency than did students who had zero to two types.
- Less than half of the White students (37 percent), some of the Black students (20 percent), and about one quarter of the Hispanic students (30 percent) had all four types of these reading materials in their homes.
- About one quarter of the White students (26 percent), about half of the Black students (46 percent), less than half of the Hispanic students (44 percent) had zero to two types of these reading materials in their homes.

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TABLE 29 | **Students' Reports on Types of Reading Materials in the Home**

Does your family have, or receive on a regular basis, any of the following items: more than 25 books, an encyclopedia, newpapers, magazines?	Michigan	Central	Nation
	Percentage and Proficiency	Percentage and Proficiency	Percentage and Proficiency
Zero to two types	30 (1.5) 206 (1.9)	29 (2.3) 207 (2.1)	33 (0.9) 204 (0.9)
Three types	35 (1.0) 221 (1.9)	33 (1.3) 221 (1.9)	32 (0.7) 219 (1.6)
Four types	34 (1.6) 224 (2.0)	38 (2.0) 227 (2.5)	36 (1.0) 226 (1.5)

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within ± 2 standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details).

Regarding the frequency of discussing with friends and family what the fourth-grade students read, Table 30 and Table A30 (Page 198) in the Data Appendix show that:

- In Michigan, 27 percent of the fourth-grade public-school students discussed with friends or family what they read almost every day; 22 percent never or hardly ever discussed what they read. Across the nation, 27 percent discussed with friends or family what they read almost every day and 24 percent never or hardly ever discussed what they read.

- About one quarter of the White students (26 percent), less than half of the Black students (32 percent), and less than half of the Hispanic students (32 percent) in Michigan discussed with friends or family what they read almost every day.

- About one quarter of the White students (21 percent), about one quarter of the Black students (23 percent), and about one quarter of the Hispanic students (22 percent) in Michigan never or hardly ever discussed with friends or family what they read.

- Students in Michigan who discussed what they read with friends or family almost every day had about the same reading proficiency as students who never or hardly ever discussed with friends or family what they read.

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TABLE 30 **Students' Reports on Talking With Friends and Family About Reading**

How often do you talk with your friends or family about something you have read?	Michigan Percentage and Proficiency	Central Percentage and Proficiency	Nation Percentage and Proficiency
Almost every day	27 (1.2) 215 (2.1)	24 (1.2) 219 (2.4)	27 (0.7) 214 (1.5)
Once or twice a week	35 (1.2) 223 (1.5)	36 (2.5) 226 (2.0)	35 (1.0) 224 (1.2)
Once or twice a month	16 (0.8) 218 (2.9)	15 (1.3) 221 (2.5)	15 (0.7) 217 (1.9)
Never or hardly ever	22 (1.0) 212 (2.4)	26 (2.4) 210 (2.4)	24 (0.9) 208 (1.5)

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within ± 2 standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details).

HOURS OF TELEVISION WATCHED PER DAY

Many avid student readers watch a lot of television, while other children neither watch much television nor read.[47] However, despite these findings, television viewing has an effect on time given to reading -- frequent television viewing limits the amount of time available for other activities such as reading.[48] Students participating in the Trial State Assessment were asked to report on the amount of television they watched each day. Table 31 and Table A31 (Page 200) in the Data Appendix show that, in Michigan:

- Some of the fourth-grade public-school students (18 percent) watched one hour or less of television each day; some (20 percent) watched six hours or more.
- A greater percentage of males than females tended to watch six or more hours of television daily. However, about the same percentage of males as females watched one hour or less per day.
- Some of the White students (14 percent), about half of the Black students (48 percent), and about one quarter of the Hispanic students (27 percent) watched six or more hours of television each day.
- Some of the White students (20 percent), relatively few of the Black students (10 percent), and some of the Hispanic students (15 percent) watched one hour or less per day.
- Average reading proficiency was lowest for students who spent six hours or more watching television each day.

[47] S. Neuman. "The Home Environment and Fifth-grade Students' Leisure Reading," *Elementary School Journal, 83.* (1986). pp. 333-343.

[48] P. Heather. *Young People's Reading: A Study of the Leisure Reading of 13-15 Year Olds.* (Sheffield, England: University of Sheffield, Center for Research on User Studies, 1981).

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TABLE 31

Students' Reports on the Amount of Time Spent Watching Television Each Day

How much television do you usually watch each day?	Michigan Percentage and Proficiency	Central Percentage and Proficiency	Nation Percentage and Proficiency
One hour or less	18 (1.2) 225 (2.8)	16 (1.0) 224 (3.6)	18 (0.8) 220 (1.9)
Two hours	20 (1.1) 225 (2.1)	22 (1.9) 228 (2.3)	21 (0.9) 223 (1.6)
Three hours	19 (0.7) 222 (1.7)	22 (1.4) 226 (1.6)	19 (0.7) 223 (1.3)
Four to five hours	23 (1.1) 217 (1.7)	23 (0.7) 215 (3.1)	22 (0.9) 216 (1.5)
Six hours or more	20 (1.2) 198 (2.4)	17 (1.0) 199 (2.4)	21 (0.8) 198 (1.7)

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within ± 2 standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details).

SUMMARY

Children who grow up in environments that support reading activities develop better reading skills.[49] Some out-of-school factors cannot be changed, but others can be altered in a positive way to influence a student's learning and motivation. Partnerships among students, parents, teachers, and the larger community can affect the educational environment in the home, resulting in more out-of-school reading and an increased value placed on educational achievement, among other desirable outcomes.

The data related to out-of-school factors show that:

- In Michigan, 44 percent of the fourth-grade public-school students reported that they read for fun almost every day while 10 percent never or hardly ever did so.
- Relatively few of the fourth-grade public-school students in Michigan (6 percent) did not read any books on their own outside of school during the month preceding the assessment; less than half (42 percent) read five or more books during the same period.

[49] Dolores Durkin. *Children who Read Early*. (New York: Teachers College Press, Columbia University, 1966).

- In Michigan, 15 percent of the fourth-grade public-school students took books out of the library for their own enjoyment almost every day; 15 percent never or hardly ever did so. Across the nation, 15 percent took books out of the library for their own enjoyment almost every day and 15 percent never or hardly ever did so.

- Students in Michigan who had four types of reading materials in the home (newspapers, magazines, more than 25 books, and an encyclopedia) showed a higher reading proficiency than did students with zero to two types of materials. Across the nation, students who had all four types of materials showed a higher reading proficiency than did students who had zero to two types.

- In Michigan, 27 percent of the fourth-grade public-school students discussed with friends or family what they read almost every day; 22 percent never or hardly ever discussed what they read. Across the nation, 27 percent discussed with friends or family what they read almost every day and 24 percent never or hardly ever discussed what they read.

- Some of the fourth-grade public-school students in Michigan (18 percent) watched one hour or less of television each day; some (20 percent) watched six hours or more. Average reading proficiency in Michigan was lowest for students who spent six hours or more watching television each day.

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APPENDIX A

Procedural Appendix

This appendix provides an overview of the technical details of the 1992 Trial State Assessment Program in reading. It includes a discussion of the history of NAEP, the assessment design, the reading framework and objectives upon which the assessment was based, and the procedures used to analyze the results.

A Recent History of NAEP

The National Assessment of Educational Progress (NAEP) is a Congressionally mandated project of the National Center for Education Statistics (NCES) that has collected and reported information for nearly 25 years on what American students know and what they can do. It is the nation's only ongoing, comparable, and representative assessment of student achievement. Its assessments are given to scientific samples of youths attending both public and private schools and enrolled in grades four, eight, or twelve.

In 1988, Congress authorized a new aspect of NAEP that allowed states and territories to participate voluntarily in a trial state assessment, using samples representative of their own students, to provide state-level data comparable to the nation and each of the other participating jurisdictions. Pursuant to that law, in 1990, the mathematics achievement of eighth graders was assessed in 40 jurisdictions (states, territories, and the District of Columbia). The results were reported in *The State of Mathematics Achievement: NAEP's 1990 Assessment of the Nation and the Trial Assessment of the States.* (Washington, DC: National Center for Education Statistics, 1991).

Over time there have been many changes in emphasis of NAEP assessment and reporting, both to take advantage of new technologies and to reflect changing trends in education. In 1984, a new technology called Item Response Theory (IRT) made it possible to create "scale scores" for NAEP similar to those the public was accustomed to seeing for the annual Scholastic Aptitude Test (SAT). Educational Testing Service, in its role as Government grantee carrying out NAEP operations, devised a new way to describe performance against this scale, called "anchor levels." Starting in 1984, NAEP results were reported by "anchor levels." Anchor levels describe distributions of performance at selected points along the NAEP scale (i.e., standard deviation units). Anchor levels show how groups of students perform relative to each other, but not whether this performance is adequate.

This 1992 reading report marks NCES's continued attempt to shift to standards-based reporting of National Assessment statistics. The transition is being made now to report NAEP results by "achievement levels." Achievement levels describe how students should perform relative to a body of content reflected in the NAEP frameworks (i.e., how *much* students should know). The impetus for this shift lies in the belief that NAEP data will take on more meaning for the public if they show what proportion of our youth are able to meet standards of performance necessary for a changing world. For the 1992 reading assessment, an anchoring process was applied to these achievement levels in order to describe what students are able to do at each of these achievement levels. Chapter 1 of this report describes how the 1992 standards were prepared, provides examples of assessment questions that illustrate the reading content reflected in the descriptions of the NAEP achievement levels, and presents the results of student performance.

Assessment Content

The objectives for the assessment were developed through a consensus process managed by the Council of Chief State School Officers, and the items were developed through a similar process managed by Educational Testing Service. The development of the Trial State Assessment Program benefitted from the involvement of hundreds of representatives from State Education Agencies who attended numerous NETWORK meetings; served on committees; reviewed the framework, objectives, and questions; and, in general, provided important suggestions on all aspects of the program.

The framework for the Trial State Assessment Program was developed using a broad-based consensus process, as described in the Overview to this report.[1] The reading assessment framework was a four-by-three matrix specifying three reading purposes: reading for literary experience, reading to be informed, and reading to perform a task. The reading to perform a task category was not evaluated and reported for grade 4. The four descriptions of reading stances include: Initial Understanding; Developing an Interpretation; Personal Reflection and Response; and Demonstrating a Critical Stance (see Figures A1 and A2).

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[1] See *National Assessment Governing Board Reading Framework for the 1992 National Assessment of Educational Progress.* (Washington, DC: United States Department of Education, 1992) for a description of the frameworks and objectives.

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FIGURE A1 | Description of Reading Purposes

Reading involves an interaction between a specific type of text or written material and a reader who typically has a purpose for reading that is related to the type of text and the context of the reading situation. The 1992 NAEP reading assessment presented three types of text to students representing each of three reading purposes: literary text for literary experience, informational text to gain information, and documents to perform a task. At grade 4, only the first two reading purposes were assessed. Students' reading abilities were evaluated in terms of a single purpose for each type of text.

Reading for Literary Experience

Reading for literary experience involves reading literary text to explore the human condition, to relate narrative events with personal experience, and to consider the interplay in the selection among emotions, events, and possibilities. Students in the NAEP reading assessment were provided with a wide variety of literary text such as short stories, poems, fables, historical fiction, science fiction, and mysteries.

Reading to Gain Information

Reading to gain information involves reading informative passages in order to obtain some general or specific information. This often requires a more utilitarian approach to reading that requires the use of certain reading/thinking strategies different from those used for other purposes. In addition, reading to gain information often involves reading and interpreting adjunct aids such as charts, graphs, maps, and tables that provide supplemental or tangential data. Informational passages in the NAEP reading assessment included biographies, science articles, encyclopedia entries, primary and secondary historical accounts, and newspaper editorials.

Reading to Perform a Task

Reading to perform a task involves reading various types of materials for the purpose of applying the information or directions in completing a specific task. The reader's purpose for gaining meaning extends beyond understanding the text to include the accomplishment of a certain activity. Documents requiring students in the NAEP reading assessment to perform a task included directions for creating a time capsule, instructions on how to write a letter to your Senator, a bus schedule, and a tax form. In 1992, reading to perform a task was assessed only at grades 8 and 12.

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FIGURE A2 | Description of Reading Stances

Readers interact with text in various ways as they use background knowledge and understanding of text to construct, extend, and examine meaning. The NAEP reading assessment framework specified four reading stances to be assessed that represent various interactions between readers and texts. These stances are not meant to describe a hierarchy of skills or abilities. Rather, they are intended to describe behaviors that readers at all developmental levels should exhibit.

Initial Understanding

Initial understanding requires a broad, preliminary construction of an understanding of the text. Questions testing this aspect ask the reader to provide an initial impression or unreflected understanding of what was read. In the 1992 NAEP reading assessment, the first question following a passage was usually one testing initial understanding.

Developing an Interpretation

Developing an interpretation requires the reader to go beyond the initial impression to develop a more complete understanding of what was read. Questions testing this aspect require a more specific understanding of the text and involve linking information across parts of the text as well as focusing on specific information.

Personal Reflection and Response

Personal response requires the reader to connect knowledge from the text more extensively with his or her own personal background knowledge and experience. The focus is on how the text relates to personal experience, and questions on this aspect ask the readers to reflect and respond from a personal perspective. For the 1992 NAEP reading assessment, personal response questions were typically formatted as constructed-response items to allow for individual possibilities and varied responses.

Demonstrating a Critical Stance

Demonstrating a critical stance requires the reader to stand apart from the text, consider it, and judge it objectively. Questions on this aspect require the reader to perform a variety of tasks such as critical evaluation, comparing and contrasting, applications to practical tasks, and understanding the impact of such text features as irony, humor, and organization. These questions focus on the reader as interpreter/critic and require reflection and judgments to be made by the reader.

Assessment Design

The 1992 reading assessment was based on a *focused balanced incomplete block (BIB) spiral matrix design* -- a design that enables broad coverage of reading content while minimizing the burden for any one student. The 1992 NAEP reading assessment for grades 4, 8, and 12 contained a total of 170 discrete constructed-response items, 135 of which were regular constructed-response items and 35 of which were extended constructed-response items.

In the Trial State reading assessment at grade 4, 85 reading items were developed for the assessment, including 35 regular constructed-response items, eight extended constructed-response items, and 42 multiple-choice items.

The first step in implementing the BIB design required selecting grade-appropriate passages and developing questions to assess the four reading stances specified in the framework. The questions were assembled into units called *blocks*, with each block designed to be completed in 25 or 50 minutes. At grade 4, eight blocks were designed; they required 25 minutes of student time for completion. The blocks were assembled into assessment booklets so that each booklet contained three background questionnaires -- the first consisting of general background questions, the second comprising reading background questions, and the third containing questions about the students' motivation to do well in the assessment -- and two blocks of cognitive reading items. The questions in the first section were read aloud to the students, usually taking about 10 minutes to complete. Students were then given 50 minutes to complete two 25-minute blocks of reading items, five minutes to complete the second background questionnaire, and three minutes to complete the third background questionnaire. Thus, the assessment required slightly over one hour of student time.

In accordance with the BIB design, the blocks were assigned to the assessment booklets so that there were a total of 16 booklets at grade 4. Blocks appeared in both positions within a booklet and were paired with blocks assessing the same purpose for reading as well as blocks assessing other purposes. The booklets were spiraled or interleaved in a systematic sequence so that each booklet appeared an appropriate number of times in the sample. The students within an assessment session were assigned booklets in the order in which the booklets were spiraled. Thus, students in any given session received a variety of different booklets and only a small number of students in the session received the same booklet.

Data Analysis and Scales

Once the assessments were conducted and information from the assessment booklets had been compiled in a database, the assessment data were weighted to match known population proportions and adjusted for nonresponse. Analyses were then conducted to determine the percentages of students who gave various responses to each cognitive and background question.

Item response theory (IRT) was used to estimate average reading proficiency for each jurisdiction and for various subpopulations, based on students' performance on the set of reading items they received. IRT provides a common scale on which performance can be reported for the nation, each jurisdiction, and subpopulations, even when all students do not answer the same set of questions. This common scale makes it possible to report on relationships between students' characteristics (based on their responses to the background questions) and their overall performance on the assessment.

A scale ranging from 0 to 500 was created to report performance for each of the two reading purposes at grade 4 (reading for literary experience and reading to gain information). The scales summarize examinee performance across all three item types used in the assessment (multiple-choice, regular constructed-response, and extended constructed-response). In producing the scales, three distinct IRT models were used. Multiple-choice items were scaled using the three-parameter logistic model; regular constructed-response items were scaled using the two-parameter logistic model; and the extended constructed-response items were scaled using a generalized partial-credit model. Each reading purpose scale was based on the distribution of student performance across the grades assessed in the 1992 national assessment (grades 4, 8, and 12) and had a mean of 250 and a standard deviation of 50. A composite scale was created as an overall measure of students' reading proficiency. At grade 4, the composite scale was a weighted average of the two reading purpose scales, where the weight for each reading purpose was proportional to the relative importance assigned to that purpose in the specifications developed by the Reading Objectives Panel (55 percent literary experience and 45 percent gain information).

Questionnaires for Teachers and Schools

As part of the Trial State Assessment, questionnaires were given to the reading teachers of assessed students and to the principal or other administrator in each participating school.

A Background Panel drafted a set of issues and guidelines and made recommendations concerning the design of these questionnaires. For the 1992 assessment, the teacher and school questionnaires focused on five educational areas: instructional content, instructional practices and experiences, teacher characteristics, school conditions and context, and conditions beyond school (i.e., home support, out-of-school activities, and attitudes). Similar to the development of the materials given to students, the guidelines and the teacher and school questionnaires were prepared through an iterative process that involved extensive development, field testing, and review by external advisory groups.

It is important to note that in this report, as in all NAEP reports, the student is always the unit of analysis, even when information from the teacher or school questionnaire is being reported. Having the student as the unit of analysis makes it possible to describe the instruction received by representative samples of fourth-grade students in public schools. Although this approach may provide a different perspective from that which would be obtained by simply collecting information from a sample of fourth-grade reading teachers or from a sample of schools, it is consistent with NAEP's goal of providing information about the educational context and performance of students.

READING TEACHER QUESTIONNAIRE

The questionnaires for fourth-grade teachers consisted of two parts. The first requested information about the teacher, such as race/ethnicity and gender, as well as academic degrees held, teaching certification, training in reading, and ability to get instructional resources. In the second part, teachers were asked to provide information on each class they taught that included one or more students who participated in the Trial State Assessment Program. The information included, among other things, the extent to which worksheets or workbooks were used, the emphasis placed on different reading skills, and various instructional approaches. Because of the nature of the sampling for the Trial State Assessment, the responses to the reading teacher questionnaire do not necessarily represent all fourth-grade reading teachers in a state or territory. Rather, they represent the teachers of the particular students being assessed.

SCHOOL CHARACTERISTICS AND POLICIES QUESTIONNAIRE

An extensive school questionnaire was completed by principals or other administrators in the schools participating in the Trial State Assessment. In addition to questions about the individuals who completed the questionnaires, there were questions about school policies, course offerings, and special priority areas, among other topics.

Estimating Variability

The statistics reported by NAEP (average proficiencies, percentages of students at or above particular achievement levels, and percentages of students responding in certain ways to background questions) are *estimates* of the corresponding information for the population of fourth-grade students in public schools in a state. These estimates are based on the performance of carefully selected, representative *samples* of fourth-grade public-school students from the state or territory.

If a different representative sample of students were selected and the assessment repeated, it is likely that the estimates might vary somewhat, and both of these sample estimates might differ somewhat from the value of the mean or percentage that would be obtained if every fourth-grade public-school student in the state or territory were assessed. Virtually all statistics that are based on samples (including those in NAEP) are subject to a certain degree of uncertainty. The uncertainty attributable to using samples of students is referred to as *sampling error*.

Like almost all estimates based on assessment measures, NAEP's total group and subgroup proficiency estimates are subject to a second source of uncertainty, in addition to sampling error. As previously noted, each student who participated in the Trial State Assessment was administered a subset of questions from the total set of questions. If each student had been administered a different, but equally appropriate, set of the assessment questions -- or the entire set of questions -- somewhat different estimates of total group and subgroup proficiency might have been obtained. Thus, a second source of uncertainty arises because each student was administered a subset of the total pool of questions.

In addition to reporting estimates of average proficiencies, proportions of students at or above particular achievement levels, and proportions of students giving various responses to background questions, this report also provides estimates of the magnitude of the uncertainty associated with these statistics. These measures of the uncertainty are called *standard errors* and are given in parentheses in each of the tables in the report. The standard errors of the estimates of reading proficiency statistics reflect both sources of uncertainty discussed above. The standard errors of the other statistics (such as the proportion of students answering a background question in a certain way or the proportion of students in certain racial/ethnic groups) reflect only sampling error. NAEP uses a methodology called the jackknife procedure to estimate these standard errors.

The reader is reminded that, as in all surveys, NAEP results are also subject to other kinds of errors including the effects of necessarily imperfect adjustment for student and school nonresponse and other largely unknowable effects associated with the particular instrumentation and data collection methods used. Nonsampling errors can be attributed to a number of sources: inability to obtain complete information about all selected students in all selected schools in the sample (some students or schools refused to participate, or students participated but answered only certain items); ambiguous definitions; differences in interpreting questions; inability or unwillingness to give correct information; mistakes in recording, coding, or scoring data; and other errors of collecting, processing, sampling, and estimating missing data. The extent of nonsampling errors is difficult to estimate. By their nature, the impact of such errors cannot be reflected in the data-based estimates of uncertainty provided in NAEP reports.

Drawing Inferences from the Results

One of the goals of the Trial State Assessment Program is to make inferences about the overall population of fourth-grade students in public schools in each participating state and territory based on the particular sample of students assessed. The results from the sample -- taking into account the uncertainty associated with all samples -- are used to make inferences about the population.

The use of *confidence intervals*, based on the standard errors, provides a way to make inferences about the population means and proportions in a manner that reflects the uncertainty associated with the sample estimates. An estimated sample mean proficiency ± 2 standard errors approximates a *95 percent confidence interval* for the corresponding population quantity. This means that with approximately 95 percent confidence, the average performance of the entire population of interest (e.g., all fourth-grade students in public schools in a state or territory) is within ± 2 standard errors of the sample mean.

As an example, suppose that the average reading proficiency of the students in a particular state's fourth-grade sample were 256 with a standard error of 1.2. A 95 percent confidence interval for the population quantity would be as follows:

$$\text{Mean} \pm 2 \text{ standard errors} = 256 \pm 2 \cdot (1.2) = 256 \pm 2.4 =$$

$$256 - 2.4 \text{ and } 256 + 2.4 = (253.6, 258.4)$$

Thus, one can conclude with 95 percent confidence that the average proficiency for the entire population of fourth-grade students in public schools in that state is between 253.6 and 258.4.

Similar confidence intervals can be constructed for percentages, *provided that the percentages are not extremely large (greater than 90 percent) or extremely small (less than 10 percent)*. For extreme percentages, confidence intervals constructed in the above manner may not be appropriate and procedures for obtaining accurate confidence intervals are quite complicated.

Analyzing Subgroup Differences in Proficiencies and Proportions

In addition to the overall results, this report presents outcomes separately for a variety of important subgroups. Many of these subgroups are defined by shared characteristics of students, such as their gender, race/ethnicity, and the type of community in which their school is located. Other subgroups are defined by students' responses to background questions. Still other subgroups are defined by the responses of the assessed students' reading teachers to questions in the reading teacher questionnaire.

In Chapter 1 of this report, differences between the state and nation were tested for overall reading proficiency, percent of students at or above the Proficient level, and for each of the purposes for reading. In Chapter 2, significance tests were conducted for the overall proficiency for each of the subpopulations, as well as percent of students at or above the Proficient level for males and females. In Chapters 3-6, comparisons were made across subgroups for responses made to various background questions.

As an example, consider the question: *Do students who reported reading three or four books outside of school each month exhibit higher average reading proficiency than students who reported reading no books outside of school?*

To answer the question posed above, begin by comparing the average reading proficiency for the two groups being analyzed. If the mean for the group that reported reading three or four books outside of school is higher, it may be tempting to conclude that that group does have higher achievement than the group that reported reading no books outside of school. However, even though the means differ, there may be no real difference in performance between the two groups in the population because of the uncertainty associated with the estimated average proficiency of the groups in the sample. Remember that the intent is to make a statement about the entire population, not about the particular sample that was assessed. The data from the sample are used to make inferences about the population as a whole.

As discussed in the previous section, each estimated sample mean proficiency (or proportion) has a degree of uncertainty associated with it. It is therefore possible that if all students in the population had been assessed, rather than a sample of students, or if the assessment had been repeated with a different sample of students or a different, but equivalent, set of questions, the performances of various groups would have been different. Thus, to determine whether there is a *real* difference between the mean proficiency (or proportion of a certain attribute) for two groups in the population, an estimate of the degree of uncertainty associated with the difference between the proficiency means or proportions of those groups must be obtained for the sample. This estimate of the degree of uncertainty -- called *the standard error of the difference* between the groups -- is obtained by taking the square of each group's standard error, summing these squared standard errors, and then taking the square root of this sum.

Similar to the manner in which the standard error for an individual group mean or proportion is used, the *standard error of the difference* can be used to help determine whether differences between groups in the population are real. The difference between the mean proficiency or proportion of the two groups ± *2 standard errors of the difference* represents an approximate 95 percent confidence interval. If the resulting interval includes zero, there is insufficient evidence to claim a real difference between groups in the population. If the interval does not contain zero, the difference between groups is *statistically significant* (different) at the .05 level.

As an example, to determine whether the average reading proficiency of fourth-grade females is higher than that of fourth-grade males in a particular state's public schools, suppose that the sample estimates of the mean proficiencies and standard errors for females and males were as follows:

Group	Average Proficiency	Standard Error
Female	259	2.0
Male	255	2.1

The difference between the estimates of the mean proficiencies of females and males is four points (259 - 255). The standard error of this difference is

$$\sqrt{2.0^2 + 2.1^2} = 2.9$$

Thus, an approximate 95 percent confidence interval for this difference is

Mean difference ± 2 standard errors of the difference =

$$4 \pm 2 \cdot (2.9) = 4 \pm 5.8 = 4 - 5.8 \text{ and } 4 + 5.8 = (-1.8, 9.8)$$

The value zero is within this confidence interval, which extends from -1.8 to 9.8 (i.e., zero is between -1.8 and 9.8). Thus, there is insufficient evidence to claim a difference in average reading proficiency between the populations of fourth-grade females and males in public schools in the state.[2]

[2] The procedure described above (especially the estimation of the standard error of the difference) is, in a strict sense, only appropriate when the statistics being compared come from independent samples. For certain comparisons in the report, the groups were not independent. In those cases, a different (and more appropriate) estimate of the *standard error of the difference* was used.

Throughout this report, when the mean proficiencies or proportions for two groups were compared, procedures like the one described above were used to draw the conclusions that are presented. If a statement appears in the report indicating that a particular group had *higher (or lower)* average proficiency than a second group, the 95 percent confidence interval for the difference between groups did not contain zero. When a statement indicates that the average proficiency or proportion of some attribute was *about the same* for two groups, the confidence interval included zero, and thus no difference could be assumed between the groups. The reader is cautioned to avoid drawing conclusions solely on the basis of the magnitude of the differences. A difference between two groups in the sample that appears to be slight may represent a statistically significant difference in the population because of the magnitude of the standard errors. Conversely, a difference that appears to be large may not be statistically significant.

The procedures described in this section, and the certainty ascribed to intervals (e.g., a 95 percent confidence interval), are based on statistical theory that assumes that only one confidence interval or test of statistical significance is being performed. However, in each chapter of this report, many different groups are being compared (i.e., multiple sets of confidence intervals are being analyzed). In sets of confidence intervals, statistical theory indicates that the certainty associated with the entire set of intervals is less than that attributable to each individual comparison from the set. To hold the certainty level for the set of comparisons at a particular level (e.g., .95), adjustments (called multiple comparison procedures) must be made to the methods described in the previous section. One such procedure -- the *Bonferroni method* -- was used in the analyses described in this report to form confidence intervals for the differences between groups whenever sets of comparisons were considered. Thus, the confidence intervals in the text that are based on sets of comparisons are more conservative than those described on the previous pages. A more detailed description of the use of the Bonferroni procedure appears in the Trial State Assessment technical report.

Statistics with Poorly Determined Standard Errors

The standard errors for means and proportions reported by NAEP are statistics and therefore are subject to a certain degree of uncertainty. In certain cases, typically when the standard error is based on a small number of students, or when the group of students is enrolled in a number of schools, the amount of uncertainty associated with the standard errors may be quite large. Throughout this report, estimates of standard errors subject to a large degree of uncertainty are followed by the symbol "!". In such cases, the standard errors -- and any confidence intervals or significance tests involving these standard errors -- should be interpreted cautiously. Further details concerning procedures for identifying such standard errors are discussed in the Trial State Assessment technical report.

Minimum Subgroup Sample Sizes

Results for reading proficiency and background variables were tabulated and reported for groups defined by race/ethnicity, type of community, gender, and parents' education level. NAEP collects data for five racial/ethnic subgroups (White, Black, Hispanic, Asian/Pacific Islander, and American Indian/Alaskan Native), four types of communities (Advantaged Urban, Disadvantaged Urban, Extreme Rural, and Other Communities), and five levels of parents' education (Graduated College, Some Education After High School, Graduated High School, Did Not Finish High School, and I Don't Know). However, in many states or territories, and for some regions of the country, the number of students in some of these groups was not sufficiently high to permit accurate estimation of proficiency and/or background variable results. As a result, data are not provided for the subgroups with very small sample sizes. For results to be reported for any subgroup, a minimum sample of 62 students was required. For statistical tests pertaining to subgroups, the sample size for both groups had to be at least 62. This number was determined by computing the sample size required to detect an effect size of .2 total-group standard deviation units with a probability of .8 or greater.

The effect size of .2 pertains to the *true* difference between the average proficiency of the subgroup in question and the average proficiency for the total fourth-grade public-school population in the state or territory, divided by the standard deviation of the proficiency in the total population. If the *true* difference between subgroup and total group mean is .2 total-group standard deviation units, then a sample size of at least 62 is required to detect such a difference with a probability of .8. Further details about the procedure for determining minimum sample size appear in the Trial State Assessment technical report.

Describing the Size of Percentages

Some of the percentages reported in the text of the report are given quantitative descriptions. For example, the number of students being taught by teachers with master's degrees in education might be described as "relatively few" or "almost all," depending on the size of the percentage in question. Any convention for choosing descriptive terms for the magnitude of percentages is to some degree arbitrary. The descriptive phrases used in the report and the rules used to select them are shown below.

Percentage	Description of Text in Report
$p = 0$	None
$0 < p \leq 10$	Relatively few
$10 < p \leq 20$	Some
$20 < p \leq 30$	About one quarter
$30 < p \leq 44$	Less than half
$44 < p \leq 55$	About half
$55 < p \leq 69$	More than half
$69 < p \leq 79$	About three quarters
$79 < p \leq 89$	Many
$89 < p < 100$	Almost all
$p = 100$	All

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APPENDIX B

Reading Stimuli and Example Items

This appendix contains replications of two of the eight reading passages used as the stimuli at grade 4. In addition, examples of two extended constructed-response items are presented, along with their scoring guides. The extended constructed-response questions, which required students to demonstrate more complex reading processes and understanding of the text by providing an extended response of a paragraph or more to the prompt, were scored using a four-point partial-credit model. For the extended constructed-response questions, students were given an entire blank (lined) page on which to provide their responses. Table A1 shows the percentages of students in Michigan and the nation attaining each of the score levels for the two extended constructed-response example items.

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TABLE A1 **Student Score-Level Percentages for Extended Constructed-Response Example Items at Grade 4**

	Not Rated	Unsatisfactory	Partial	Essential	Extensive
SYBIL SOUNDS THE ALARM					
Example Item 1					
Michigan	5 (0.9)	55 (1.7)	37 (1.7)	3 (0.8)	0 (0.0)
Nation	8 (0.8)	53 (1.5)	37 (1.7)	3 (0.6)	0 (0.2)
AMANDA CLEMENT					
Example Item 2					
Michigan	2 (0.6)	14 (1.5)	57 (2.1)	25 (1.9)	2 (0.5)
Nation	3 (0.6)	14 (1.3)	51 (2.1)	29 (1.4)	2 (0.5)

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SYBIL SOUNDS THE ALARM

by Drollene P. Brown

A red sky at night does not usually cause wonder. But on the evening of April 26, 1777, the residents of Ludingtons' Mills were concerned. The crimson glow was in the east, not from the west where the sun was setting.

The Ludington family sat at supper, each one glancing now and again toward the eastern window. Sybil, at sixteen the oldest of eight children, could read the question in her mother's worried eyes. Would Henry Ludington have to go away again? As commander of the only colonial army regiment between Danbury, Connecticut, and Peekskill, New York, Sybil's father did not have much time to be with his family.

Thudding hooves in the yard abruptly ended their meal. The colonel pushed back his chair and strode to the door. Although Sybil followed him with her eyes, she dutifully began to help her sister Rebecca clear the table.

The girls were washing dishes when their father burst back into the room with a courier at his side.

"Here, Seth," said the colonel, "sit you down and have some supper. Rebecca, see to our weary friend."

Sybil, glancing over her shoulder, saw that the stranger was no older than she. A familiar flame of indignation burned her cheeks. Being a girl kept her from being a soldier!

Across the room, her parents were talking together in low tones. Her father's voice rose.

"Sybil, leave the dishes and come here," he said.

Obeying quickly, she overheard her father as he again spoke to her mother.

"Abigail, she is a skilled rider. It is Sybil who has trained Star, and the horse will obey her like no other."

"That red glow in the sky," Colonel Ludington said, turning now to his daughter, "is from Danbury. It's been burned by British raiders. There are about two thousand Redcoats, and they're heading for Ridgefield. Someone must tell our men that the lull in the fighting is over; they will have to leave their families and crops again."

"I'll go! Star and I can do it!" Sybil exclaimed. She faced her mother. "Star is sure of foot, and will carry me safely."

"There are dangers other than slippery paths," her mother said, softly. "Outlaws or deserters or Tories or even British soldiers may be met. You must be wary in a way that Star cannot."

A lump rose in Sybil's throat. "I can do it," she declared.

Without another word, Abigail Ludington turned to fetch a woolen cape to protect her daughter from the wind and rain. One of the boys was sent to saddle Star, and Sybil was soon ready. When she had swung up on her sturdy horse, the colonel placed a stick in her hand.

As though reciting an oath, she repeated her father's directions: "Go south by the river, then along Horse

Pond Road to Mohopac Pond. From there, turn right to Red Mills, then go north to Stormville." The colonel stood back and saluted. She was off!

At the first few isolated houses, windows or doors flew open as she approached. She shouted her message and rode on. By the time she reached the first hamlet, all was dark. There were many small houses there at the edge of Shaw's Road, but everyone was in bed. Lights had not flared up at the sound of Star's hoofbeats. Sybil had not anticipated this. Biting her lower lip, she pulled Star to a halt. After considering for a moment, she nudged the horse forward, and riding up to one cottage after another, beat on each door with her stick.

"Look at the sky!" she shouted. "Danbury's burning! All men muster at Ludingtons'!"

At each village or cluster of houses, she repeated the cry. When lights began to shine and people were yelling and moving about, she would spur her horse onward. Before she and Star melted into the night, the village bells would be pealing out the alarm.

Paths were slippery with mud and wet stones, and the terrain was often hilly and wooded. Sybil's ears strained for sounds of other riders who might try to steal her horse or stop her mission. Twice she pulled Star off the path while unknown riders passed within a few feet. Both times, her fright dried her mouth and made her hands tremble.

By the time they reached Stormville, Star had stumbled several times, and Sybil's voice was almost gone. The town's call to arms was sounding as they turned homeward. Covered with mud, tired beyond belief, Sybil could barely stay on Star's back when they rode into their yard. She had ridden more than thirty miles that night.

In a daze, she saw the red sky in the east. It was the dawn. Several hundred men were milling about. She had roused them in time, and Ludington's regiment marched out to join the Connecticut militia in routing the British at Ridgefield, driving them back to their ships on Long Island Sound.

Afterward, General George Washington made a personal visit to Ludingtons' Mills to thank Sybil for her courageous deed. Statesman Alexander Hamilton wrote her a letter of praise.

Two centuries later visitors to the area of Patterson, New York, can still follow Sybil's route. A statue of Sybil on horseback stands at Lake Gleneida in Carmel, New York, and people in that area know well the heroism of Sybil Ludington. In 1978, a commemorative postage stamp was issued in her honor, bringing national attention to the heroic young girl who rode for independence.

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EXAMPLE ITEM 1

Extended Constructed-Response Item
Sybil Sounds the Alarm

Question

What are the major events in the story?

Stance

Initial Understanding

General Scoring Rubric

Demonstrates an understanding of an historical narrative by summarizing the important major events.

Scoring Guide

Unsatisfactory. These responses demonstrate little or no understanding of the events surrounding Sybil's ride by providing bits of information from the story, but not major events. In addition, these responses include those in which students merely copy one or more lines from the text, often the first or last sentence of the story.

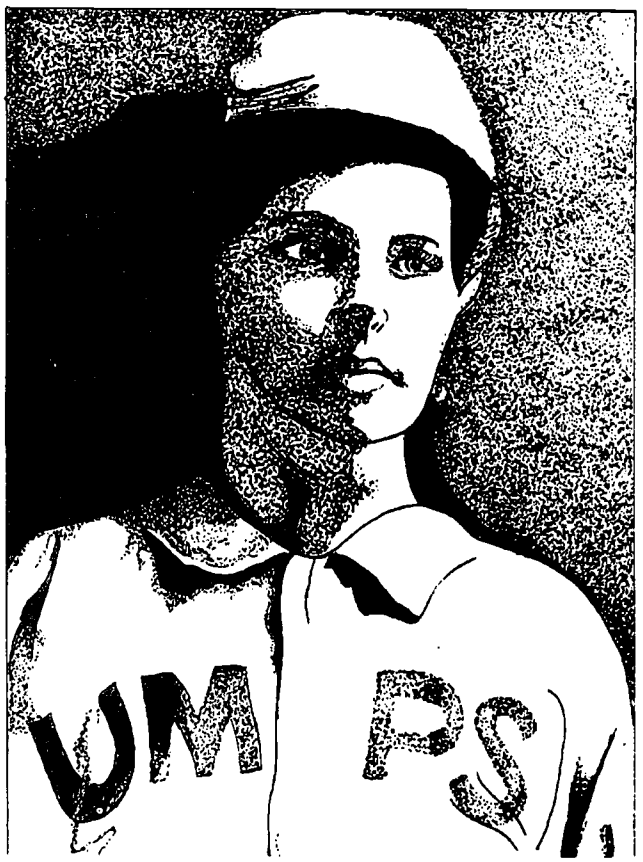
Partial. These responses demonstrate some understanding of Sybil's ride by providing an account of one or two major events, not usually accompanied by a detailed account or an explanation of the importance of the events. These responses may also be a brief statement without specific events.

Essential. These responses demonstrate an understanding of at least two of the major events surrounding Sybil's ride by providing a detailed account of these events **OR** by explaining the importance of the major events.

Extensive. These responses demonstrate an in-depth understanding of the major events surrounding Sybil's ride by providing a detailed account of major events accompanied by an explanation of their significance. The responses display a thorough understanding of the story as a whole.

Amanda Clement: The Umpire in a Skirt

Marilyn Kratz



IT WAS A HOT SUNDAY AFTERNOON in Hawarden, a small town in western Iowa. Amanda Clement was sixteen years old. She sat quietly in the grandstand with her mother, but she imagined herself right out there on the baseball diamond with the players. Back home in Hudson, South Dakota, her brother Hank and his friends often asked her to umpire games. Sometimes she was even allowed to play first base.

Today, Mandy, as she was called, could only sit and watch Hank pitch for Renville against Hawarden. The year was 1904, and girls were not supposed to participate in sports. But when the umpire for the preliminary game between two local teams didn't arrive, Hank asked Mandy to make the calls.

Mrs. Clement didn't want her daughter to umpire a public event, but at last Hank and Mandy persuaded her to give her consent. Mandy eagerly took her position behind the pitcher's mound. Because only one umpire was used in those days, she had to call plays on four bases as well as strikes and balls.

Mandy was five feet ten inches tall and looked very impressive as she accurately called the plays. She did so well that the players for the big game asked her to umpire for them -- with pay!

Mrs. Clement was shocked at that idea. But Mandy finally persuaded her mother to allow her to do it. Amanda Clement became the first paid woman baseball umpire on record.

Mandy's fame spread quickly. Before long, she was umpiring games in North and South Dakota, Iowa, Minnesota, and Nebraska. Flyers, sent out to announce upcoming games, called Mandy the "World Champion Woman Umpire." Her uniform was a long blue skirt, a black necktie, and a white blouse with UMPS stenciled across the front. Mandy kept her long dark hair tucked inside a peaked cap. She commanded respect and attention -- players never said, "Kill the umpire!" They argued more politely, asking, "Beg your pardon, Miss Umpire, but wasn't that a bit high?"

Mandy is recognized in the Baseball Hall of Fame in Cooperstown, New York; the Women's Sports Hall of Fame; and the Women's Sports Foundation in San Francisco, California. In 1912, she held the world record for a woman throwing a baseball: 279 feet.

Mandy's earnings for her work as an umpire came in especially handy. She put herself through college and became a teacher and coach, organizing teams and encouraging athletes wherever she lived. Mandy died in 1971. People who knew her remember her for her work as an umpire, teacher, and coach, and because she loved helping people as much as she loved sports.

"Amanda Clement: The Umpire in a Skirt" by Marilyn Kratz. Copyright 1987 by Marilyn Kratz. Copyright 1987 by Carus Corporation. Reprinted by permission.

EXAMPLE ITEM 2

Extended Constructed-Response Item
Amanda Clement: The Umpire in a Skirt

Question

If she were alive today, what question would you like to ask Mandy about her career? Explain why the answer to your question would be important to know.

Stance

Personal Response

General Scoring Rubric

Demonstrates an understanding of Amanda's career as a baseball umpire and a personal reaction to her nontraditional role.

Scoring Guide

Unsatisfactory. These responses demonstrate little or no understanding by providing inappropriate details or isolated bits of information from the passage, or they pose a question that is unrelated to Mandy's career as a woman in a role traditionally dominated by males. Some responses may simply refer to particular sentences from the passage and recast them as questions without demonstrating comprehension of that portion of the text.

Partial. These responses demonstrate only partial understanding of Mandy's career and its nontraditional nature by posing one question that is either not explained OR is explained using circular reasoning OR focuses on reasons tangential to Mandy's nontraditional role.

Essential. These responses demonstrate at least surface understanding of Mandy's career and its nontraditional nature. They contain at least one question that is relevant to the student's own understanding of what it is like to be an athlete who is highly successful or the first person to do something.

Extensive. These responses contain one question that is explained in relation to a personal view of the passage and indicates the student has considered the more abstract aspects of the passage (*e.g.*, emotional considerations, personal challenges, societal reactions). These responses contain questions about issues or reactions that have grown out of a careful consideration of the potential problems Mandy faced and the historical context in which she lived.

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APPENDIX C

Setting the Achievement Levels

Setting achievement levels is a method for setting standards on the NAEP assessment that identifies what students should know and should be able to do at various points along the proficiency scale. The method depends on securing and summarizing a set of judgmental ratings of expectations for student educational performance on specific items. The NAEP proficiency scale is a numerical index of students' performance in reading ranging from 0 to 500 and has three achievement levels -- Basic, Proficient, and Advanced -- mapped onto it for each grade level assessed.

In developing the threshold values for the levels, a broadly constituted panel of judges -- including teachers (50 percent), non-teacher educators (20 percent), and non-educators (30 percent) -- rated a grade-specific item pool using the Board's policy definitions for Basic, Proficient, and Advanced.[1] The policy definitions were operationalized by the judges in terms of specific reading skills, knowledge, and behaviors that were judged to be appropriate expectations for students in each grade, and were in accordance with the current reading assessment framework. The policy definitions are as follows:

BASIC This level, below Proficient, denotes partial mastery of the knowledge and skills that are fundamental for proficient work at each grade -- 4, 8, and 12.

PROFICIENT This central level represents solid academic performance for each grade tested -- 4, 8, and 12. Students reaching this level have demonstrated competency over challenging subject matter and are well prepared for the next level of schooling.

ADVANCED This higher level signifies superior performance beyond proficient grade-level mastery at grades 4, 8, and 12.

The judges' operationalized definitions were incorporated into lists of descriptors that represented what borderline students should be able to do at each of the policy levels. The purpose of having panelists develop their own operational definitions of the achievement levels was to ensure that all panelists would have a common understanding of borderline performances and a common set of content-based referents to use during the item-rating process.

[1] Non-educators represented business, labor, government service, parents, and the general public.

For the multiple-choice and short constructed-response items that were scored correct/incorrect, the judges (22 at grade 4) each rated half of the items in the NAEP pool in terms of the expected probability that a student at a borderline achievement level would answer the item correctly, based on the judges' operationalization of the policy definitions and the factors that influence item difficulty. To assist the judges in generating consistently-scaled ratings, the rating process was repeated twice, with feedback. Information on consistency among different judges and on the difficulty of each item[2] was fed back into the first repetition (round 2), while information on consistency within each judge's set of ratings was fed back into the second repetition (round 3). The third round of ratings permitted the judges to discuss their ratings among themselves to resolve problematic ratings. The mean final rating of the judges aggregated across multiple-choice (MC) and short constructed-response (SCR) items yielded the threshold values for these items in the percent correct metric. These cut scores were then mapped onto the NAEP scale (which is defined and scored using item response theory, rather than percent correct). For extended constructed-response (ECR) items, judges were asked to select student papers which exemplified performance at the cutpoint of each achievement level. Then for each achievement level, the mean of the scores assigned to the selected papers was mapped onto the NAEP scale in a manner similar to that used for the items scored correct/incorrect. The final cut score for each achievement level was a weighted average of the cut score for the multiple-choice and short constructed-response items and the cut score for the extended constructed-response items, with the weights being proportional to the information supplied by the two classes of items. The judges' ratings, in both metrics, and their associated errors of measurement are shown below.

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FIGURE A3 | **Cutpoints for Achievement Levels at Grade 4**

Level	Mean Percent Correct -- MC & SCR (Round 3)	Mean Paper Rating -- ECR (Round 3)	Scale Score*	Standard Error of Scale Score**
Basic	38	2.72	212	2.5
Proficient	62	3.14	243	2.1
Advanced	80	3.48	275	8.8

* Scale score is derived from a weighted average of the mean percent correct (for multiple-choice and short constructed-response items) and the mean paper rating for the extended constructed-response items after both were mapped onto the NAEP scale. ** The standard error of the scale score is estimated from the difference in mean scale scores for the two equivalent subgroups of judges.

[2] Item difficulty estimates were based on a preliminary, partial set of responses to the national assessment.

For each achievement level, exemplar items were selected that reflected the kinds of tasks that examinees at or above the level were likely to be able to perform successfully. Panelists who had rated specific blocks of released items were asked to review those same items again to select particular ones as exemplary of each achievement level. The items were pre-assigned to each achievement level based on the final round of the judges' rating data, and using the following statistical criteria. For any given level, Basic, Proficient, or Advanced:

- items having an expected p-value ≥ .501 and ≤ .750, *at this level*, were assigned to their level;
- items meeting the criteria at *more than one level* were assigned to *one* level taking both the expected p-value and appropriateness of the item for one of the levels into account, and
- items with expected p-values ≤ .501 were assigned to levels where a specific passage had few or no items at that level.

During the validation process, items were again reviewed. Those that had been selected by the original standard-setting panel were grouped into sets of *pre-selected* items. All remaining items in the released blocks that met the statistical criteria, but that *were not recommended by the original panel*, were grouped into a set identified as *additional items for review*. Exercises that had been recommended for reclassification into another achievement level category were presented in their original classification for the purpose of this review.

Panelists worked in grade-level groups to review the possible exemplar items. The task was to select a set of items, for each achievement level for their grade, that would best communicate to the public the levels of reading ability and the types of skills needed to perform in reading at that level.

After selecting sets of items for their grades, the three grade-level groups met as a whole group to review item selection. During this process, cross-grade items that had been selected as exemplars by two grades (two such items were selected at grades 8 and 12) were assigned to one grade by whole group consensus. In addition, items were evaluated by the whole group for overall quality. This process yielded 13 items as recommended exemplars for grade 4; 13 items as recommended exemplars for grade 8; and 21 items as recommended exemplars for grade 12.

In Chapter 1, Figure 3 provides the final descriptions of the three achievement levels for grade 4. Exemplar items, illustrating what students at each level should be able to perform, are included in Chapter 1. In principle, the descriptions of the levels, though based on the 1992 item pool, apply to the current reading assessment framework and will not change from year to year (that is, until the framework changes). However, the sample items reflective of the levels will need to be updated each time the assessment is administered. Figure 4 in Chapter 1 provides the percentage of students at or above each of the three levels and the percentage of students below the Basic level.

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APPENDIX D

Anchoring the Achievement Levels

Scale anchoring is a method for defining performance along a scale. NAEP'S overall reading proficiency scale was anchored at the three achievement levels -- Basic, Proficient, and Advanced -- to provide descriptions of what fourth-grade students know and can do at each level.

In February, 1993, ETS applied a modified anchoring procedure to the 1992 reading achievement levels. As applied to the achievement levels, the anchoring process was designed to determine the sets of questions that students scoring at or above each achievement level cutpoint could perform with a high degree of success. A committee of reading experts, educators, and others was assembled to review the questions and, using their knowledge of reading and student performance, to generalize from the questions to descriptions of the types of skills exhibited at each achievement level.

Specifically, a question was identified as anchoring at an achievement level for a given grade if it was answered correctly by at least 65 percent of the students in that grade scoring at the cutpoint of that achievement level (and, conversely, by less than 65 percent of the students scoring at the cutpoints for any lower achievement level). In order to maximize the number of questions offered for consideration, the traditional discrimination criterion, that required that the chances of success at the next lower level be at least 30 percentage points lower, was not used. The modified anchoring procedure enables the entire set of assessment questions to be used in describing student performance.

By anchoring the achievement level cutpoints, instead of the entire interval, it is possible to determine the types of skills exhibited by all students within an interval. Thus, an item anchoring at the Basic level cutpoint will be answered correctly by at least 65 percent of minimally basic students and will be answered correctly by at least that percentage of students in the basic interval. Since the NAEP results are reported in terms of the percentages of students at or above each of the cutpoints, it is important to be able to say what all students in the interval are likely to be able to do. In contrast, an anchoring procedure based on the interval identifies skills that a typical member of the interval (e.g., a typical basic student) likely possesses. While we could infer what a typical student in the basic interval can likely do, we would not be able to infer the skills of a minimally basic student.

A description of the entire achievement level interval can be inferred by comparing the descriptions for adjacent cutpoints. Thus, the description for the basic cutpoint tells what all basic students are likely to be able to do with increasing certainty as their reading proficiency increases. The description of the proficient cutpoint refers to the abilities of minimally proficient students, but also provides information about the capabilities of basic students scoring at the top of the basic interval. To extend the description of the Advanced achievement level, since that interval does not have an upper boundary, an additional set of questions were identified as almost anchoring at the Advanced level. These questions had probabilities of success between 50 and 65 percent for minimally advanced students and identify the types of skills that more advanced students are likely to possess.

The anchoring process was further informed by results using the item mapping procedure. Item mapping provides additional information about the performance of students within each of the achievement level intervals, and of students who performed below the Basic level. In item mapping, the items are arranged in the order of the proficiency level corresponding to a defined expected probability of success based on the Item Response Theory parameters. The items, or short descriptions, are then displayed, along with the proficiency value associated with the selected probability of success. For consistency with the anchoring process, a .65 expected probability of success was used.

To provide a sufficient pool of respondents in identifying anchor items, students at the cutpoint of each achievement level were defined as those whose estimated reading proficiency was within 12.5 points of the achievement level cutpoint. This is consistent with previous anchoring procedures and provides an empirical estimate of the performance of students scoring at the cutpoint. To provide stable estimates, the calculations of the chances of success on an item had to be based on at least 70 students in the cutpoint interval; this is a reduction from the previous requirement of 100 students to accommodate the small number of students reaching the Advanced level.

Because the extended constructed-response items were scored on an ordered scale with 4 scoring levels (unsatisfactory, partial, essential, and extensive), the above procedure, which relies on the notion of a correct or an incorrect response to an item, was generalized. To fit into the anchoring framework, each extended constructed-response item was treated as three distinct items corresponding to scores of partial or better, essential or better, and extensive. These distinct items were then analyzed in the same manner as items scored correct/incorrect. Thus, for example, an extended constructed-response item might anchor at the Proficient level for partial or better responses, and at the Advanced level for essential or better responses.

The items were placed in notebooks by grade in the following order: anchored at Basic, anchored at Proficient, anchored at Advanced, and almost anchored at Advanced (chance of success between 50 and 65 percent at the Advanced level). For cross-referencing purposes, the remaining items in the assessment were also included in the notebook under the "did not anchor" heading. (These were the items answered correctly by fewer than 50 percent of the students at the advanced cutpoint.) Each item was accompanied by its scoring guide (for constructed-response items), the chance of success on the item for students at each achievement level, the counts and weighted proportions of students at each level, the overall percent correct on the item for the total population of respondents, and the reading purpose and stance classifications for the item.

Twenty reading education experts participated in the anchoring process. They represented teachers for the various grade levels involved, college professors, state curriculum supervisors, and researchers. The panelists were divided into three groups, one for each grade level. The grade-level groups worked independently for the most part, with periodic meetings across the three groups to reconcile views. With the framework for the 1992 reading assessment and the achievement level descriptions as a reference, panelists were asked to use the information in the anchor item notebooks and from the item mapping to describe the knowledge, skills, and reasoning demonstrated by the students at the cutpoint of each achievement level. In addition, performance as depicted by the maps or items that almost anchored was taken as indicating beginning or emerging skills for students in the interval. Based on the items anchoring at each level and the item maps, the panelists were asked to draft a description of achievement at each level, which is shown in Figure A4. In drafting these descriptions, the panelists were instructed to consider the context of the assessment and not to overinfer skills from limited numbers of items.

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FIGURE A4 | Anchor Descriptions of Achievement Levels

The following descriptions of reading behaviors characterize students' performance on the 1992 NAEP reading assessment. Based on a thorough review of all the items and how students performed at each of the three achievement levels (basic, proficient, and advanced), these descriptions were developed to portray the reading ability of students at grades 4, 8, and 12 as observed on the NAEP reading assessment. Students' interactions with the three different types of text used in the assessment were considered separately. Each of the three text types represents a different purpose for reading. At grade 4, students were asked to read for literary experience and to gain information. The descriptions are intended to be cumulative from Basic level performance through Advanced. Therefore, demonstrated ability at the Proficient level presumes Basic level performance, and Advanced performance presumes Proficient, as well as Basic, abilities.

BASIC (212)	Grade 4 students understand uncomplicated narratives and high-interest informative texts, identify obvious themes, locate explicit information, summarize parts of text, and make judgments about characters' actions.

Fourth-grade students at the basic level can read uncomplicated narratives with understanding. The *literary* texts at this level include fables and realistic fiction about familiar topics. These students can answer questions that focus on specific parts of the story. They are able to identify an obvious theme or message. They can take the perspective of characters that are familiar or similar to themselves and compare characters to each other. In addition, they can relate to the feelings of familiar characters, as well as interpret and make judgments about the characters' actions.

Students at the basic level are able to gain information from high-interest *informative* texts. These students are successful when texts are structured as narratives and deal with relatively familiar topics. Students can search for and locate explicit information within the text, as well as provide evidence of straightforward comprehension of the text. They are able to select relevant information in order to provide a summarization focusing on part of the text. They can build simple inferences based on specific information. These students also are able to construct their own simple questions related to the passage.

PROFICIENT (243)	Grade 4 students understand and interpret less familiar texts, provide textual support for interpretations, generalize across text, identify relevant information, understand subtleties in aspects of a story, relate text to background experiences, and formulate simple questions.

Fourth-grade students at the proficient level can form an understanding and extend the meaning of more difficult, unfamiliar *literary* pieces -- those in culturally different or historical settings. They are able to respond to questions that require some interpretation. Some can construct responses to the story as a whole, as well as consider subtleties in aspects of the story. When given interpretations of the story, they can provide some justification and support for those interpretations. They are able to recognize multiple perspectives. In addition, they have the ability to connect information in the story to the author's purpose, as well as consider alternate possibilities for the story's development.

Students at the proficient level are able to gain information and to interpret the meaning of *informative* text that contains narrative elements and direct quotes. Their responses to increasingly more challenging questions provide evidence that they can search for, locate, select, prioritize, and apply relevant information. They can generalize across parts of the text. They can relate information from the selection to their own background experiences and to inferences that are provided for them. They also are able to recognize an author's basic organizational pattern.

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FIGURE A4 (continued) | **Anchor Descriptions of Achievement Levels**

ADVANCED (275)	Grade 4 students interpret and examine the meaning of text, summarize information across whole texts, develop their own ideas about textual information, understand some literary devices, and are beginning to formulate more complex questions about text.

Fourth-grade students at the advanced level can form an understanding of what they read and extend, elaborate, and examine the meaning of *literary* texts. They can construct responses to a story by selecting relevant information and building their own interpretations that remain consistent with the text. They are able to summarize information across the whole story. They understand some literary devices, such as figurative language, and can interpret the author's intentions.

Students at the advanced level can gain information from what they read and can extend, elaborate, and examine the meaning of *informative* texts about less familiar topics. They are able to read for the purpose of gaining a more thorough understanding of a particular topic, and some can develop their own ideas based on the information presented in the passage. They can discriminate the relative importance of ideas in the text and are beginning to form more complex questions about the selection. They are able to provide an explanation of the author's techniques for presenting information.

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APPENDIX E

Data Appendix

For each of the tables in the main body of the report that presents reading proficiency results, this appendix contains corresponding data for each level of the four reporting subpopulations -- race/ethnicity, type of community, parents' education level, and gender.

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TABLE A11 | **Teachers' Reports on Time Spent Teaching Reading (Per Day)**

	45 Minutes or Less	60 Minutes	90 Minutes or More
	Percentage and Proficiency	Percentage and Proficiency	Percentage and Proficiency
TOTAL			
State	28 (4.1)	59 (4.0)	14 (2.3)
	222 (4.3)	216 (1.5)	213 (2.9)
Nation	29 (3.2)	52 (3.4)	19 (1.8)
	217 (2.3)	218 (1.9)	215 (2.6)
RACE/ ETHNICITY			
White			
State	27 (4.5)	60 (4.5)	13 (2.5)
	232 (2.5)	223 (1.5)	220 (2.9)!
Nation	29 (3.6)	55 (3.7)	16 (1.9)
	223 (2.6)	224 (2.0)	225 (2.8)
Black			
State	27 (9.8)	59 (8.4)	14 (3.6)
	185 (11.6)!	190 (3.1)	*** (***.*)
Nation	30 (4.0)	41 (4.2)	29 (4.3)
	196 (3.3)	194 (2.8)	194 (3.3)
Hispanic			
State	32 (5.3)	53 (4.8)	15 (4.3)
	*** (***.*)	202 (3.4)	*** (***.*)
Nation	28 (4.0)	49 (5.3)	24 (4.0)
	203 (5.8)	203 (3.0)	200 (3.6)
TYPE OF COMMUNITY			
Adv. urban			
State	43 (15.3)!	46 (16.0)!	11 (5.8)!
	246 (4.8)!	236 (4.1)!	*** (***.*)
Nation	16 (10.2)!	67 (12.2)!	17 (9.4)!
	*** (***.*)	242 (8.7)!	*** (***.*)
Disadv. urban			
State	10 (4.8)!	60 (9.2)!	30 (7.1)!
	*** (***.*)	195 (5.8)!	193 (9.1)!
Nation	28 (7.6)	40 (7.1)	31 (7.4)
	193 (7.2)!	188 (3.4)!	194 (4.2)!
Extreme rural			
State	19 (11.4)!	66 (16.4)!	15 (12.7)!
	*** (***.*)	222 (4.1)!	*** (***.*)
Nation	32 (8.4)	62 (8.8)	6 (2.9)
	218 (4.9)!	221 (4.2)!	*** (***.*)
Other			
State	28 (5.0)	62 (4.8)	11 (2.9)
	225 (3.4)!	218 (1.7)	218 (3.4)!
Nation	29 (4.0)	51 (4.5)	21 (2.3)
	219 (2.7)	218 (2.0)	217 (2.6)

(continued on next page)

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TABLE A11 (continued)

Teachers' Reports on Time Spent Teaching Reading (Per Day)

	45 Minutes or Less	60 Minutes	90 Minutes or More
	Percentage and Proficiency	Percentage and Proficiency	Percentage and Proficiency
TOTAL			
State	28 (4.1)	59 (4.0)	14 (2.3)
	222 (4.3)	216 (1.5)	213 (2.9)
Nation	29 (3.2)	52 (3.4)	19 (1.8)
	217 (2.3)	218 (1.9)	215 (2.6)
PARENTS' EDUCATION			
College graduate			
State	34 (5.4)	53 (4.9)	12 (2.5)
	231 (4.1)	222 (2.7)	213 (4.4)!
Nation	29 (3.0)	52 (3.5)	19 (2.1)
	224 (3.4)	227 (2.7)	224 (3.4)
Some after HS			
State	26 (4.6)	59 (4.8)	14 (3.1)
	*** (***)	222 (2.5)	*** (***)
Nation	27 (4.6)	54 (5.2)	19 (2.8)
	221 (6.9)	224 (3.1)	224 (5.5)
HS graduate			
State	20 (4.7)	62 (4.8)	18 (3.9)
	*** (***)	216 (2.8)	*** (***)
Nation	30 (4.5)	53 (5.6)	18 (2.6)
	214 (4.3)	216 (3.7)	203 (5.0)
HS non-graduate			
State	17 (5.4)	67 (6.3)	17 (4.6)
	*** (***)	*** (***)	*** (***)
Nation	29 (5.9)	42 (5.8)	29 (4.6)
	*** (***)	201 (5.5)	199 (4.3)
I don't know			
State	25 (4.3)	61 (4.4)	13 (2.5)
	212 (5.9)	210 (1.4)	212 (4.4)!
Nation	28 (3.7)	53 (3.8)	18 (2.2)
	213 (2.3)	211 (2.0)	209 (3.1)
GENDER			
Male			
State	29 (4.4)	57 (4.4)	14 (2.5)
	221 (5.5)	212 (1.8)	214 (3.9)
Nation	28 (3.2)	53 (3.5)	19 (2.0)
	212 (2.5)	215 (2.1)	212 (3.2)
Female			
State	26 (4.0)	60 (3.9)	13 (2.3)
	222 (3.7)	220 (2.0)	213 (3.5)
Nation	29 (3.3)	52 (3.6)	19 (2.0)
	222 (2.7)	222 (2.1)	218 (2.7)

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within ± 2 standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). ! Interpret with caution -- the nature of the sample does not allow accurate determination of the variability of this statistic. *** Sample size is insufficient to permit a reliable estimate (fewer than 62 students).

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TABLE A12 | **Teachers' Reports on Emphasis Given to Specific Methods for Teaching Reading**

	Phonics		Integration of Reading and Writing		Whole Language	
	Heavy Emphasis	Little or No Emphasis	Heavy Emphasis	Little or No Emphasis	Heavy Emphasis	Little or No Emphasis
	Percentage and Proficiency		Percentage and Proficiency		Percentage and Proficiency	
TOTAL						
State	9 (1.8)	42 (3.1)	49 (3.7)	3 (1.0)	41 (3.4)	15 (2.3)
	204 (4.6)	223 (2.0)	217 (2.3)	*** (**.*)	219 (3.1)	214 (3.5)
Nation	11 (1.4)	40 (2.4)	55 (2.7)	3 (0.9)	42 (3.0)	18 (1.8)
	206 (2.9)	221 (2.4)	220 (2.2)	211 (5.4)!	219 (2.6)	215 (2.0)
RACE/ ETHNICITY						
White						
State	7 (1.8)	48 (3.4)	48 (4.1)	2 (1.1)	42 (3.6)	15 (2.5)
	217 (3.8)!	226 (1.9)	224 (2.2)	*** (**.*)	226 (2.6)	223 (3.6)
Nation	10 (1.5)	44 (2.8)	55 (3.2)	3 (1.0)	42 (3.4)	19 (2.1)
	216 (3.2)	228 (2.6)	227 (2.2)	217 (5.8)!	228 (2.8)	219 (2.2)
Black						
State	16 (5.3)	13 (3.4)	54 (8.2)	4 (1.0)	37 (8.3)	16 (5.6)
	*** (**.*)	*** (**.*)	191 (3.4)	*** (**.*)	189 (10.2)!	*** (**.*)
Nation	17 (3.5)	31 (4.0)	50 (4.5)	2 (1.4)	40 (4.2)	17 (2.8)
	188 (3.8)!	197 (4.2)	194 (2.7)	*** (**.*)	190 (3.3)	200 (2.9)
Hispanic						
State	16 (4.1)	33 (5.3)	52 (5.4)	6 (2.7)	33 (5.3)	17 (4.7)
	*** (**.*)	*** (**.*)	195 (4.1)	*** (**.*)	*** (**.*)	*** (**.*)
Nation	19 (4.0)	25 (3.8)	60 (5.2)	4 (1.5)	42 (4.9)	18 (3.7)
	191 (4.2)!	210 (6.0)	203 (3.7)	*** (**.*)	200 (3.5)	208 (6.2)!
TYPE OF COMMUNITY						
Adv. urban						
State	4 (4.4)!	52 (15.1)!	77 (11.8)!	0 (0.0)!	68 (9.6)!	5 (5.6)!
	*** (**.*)	241 (6.2)!	239 (5.4)!	*** (**.*)	240 (6.4)!	*** (**.*)
Nation	14 (7.3)!	45 (14.3)!	65 (12.8)!	0 (0.0)!	65 (13.8)!	9 (4.5)!
	*** (**.*)	253 (10.4)!	244 (7.5)!	*** (**.*)	250 (6.6)!	*** (**.*)
Disadv. urban						
State	23 (8.4)!	16 (6.6)!	53 (10.3)!	3 (2.6)!	31 (10.1)!	12 (7.4)!
	187 (6.6)!	*** (**.*)	185 (4.0)!	*** (**.*)	191 (4.5)!	*** (**.*)
Nation	18 (5.2)	21 (6.8)	51 (7.8)	0 (0.3)	34 (5.6)	21 (7.2)
	177 (3.8)!	193 (8.9)!	186 (6.0)!	*** (**.*)	183 (7.9)!	200 (3.8)!
Extreme rural						
State	4 (2.9)!	50 (16.1)!	29 (11.4)!	4 (3.6)!	38 (11.6)!	11 (6.8)!
	*** (**.*)	230 (3.3)!	*** (**.*)	*** (**.*)	*** (**.*)	*** (**.*)
Nation	5 (1.8)	41 (9.1)	49 (9.4)	3 (2.2)	36 (7.8)	14 (4.4)
	*** (**.*)	222 (4.4)!	224 (4.1)!	*** (**.*)	214 (5.8)!	221 (3.4)!
Other						
State	8 (2.7)	46 (4.7)	48 (5.2)	3 (1.7)	43 (4.6)	15 (3.2)
	215 (6.5)!	222 (2.1)	216 (2.3)	*** (**.*)	220 (2.6)	221 (4.5)!
Nation	12 (2.0)	42 (3.1)	55 (3.6)	4 (1.2)	42 (3.4)	19 (2.8)
	210 (3.3)	221 (2.9)	221 (2.5)	214 (5.5)!	220 (2.7)	216 (2.5)

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TABLE A12 (continued)

Teachers' Reports on Emphasis Given to Specific Methods for Teaching Reading

	Phonics		Integration of Reading and Writing		Whole Language	
	Heavy Emphasis	Little or No Emphasis	Heavy Emphasis	Little or No Emphasis	Heavy Emphasis	Little or No Emphasis
	Percentage and Proficiency		Percentage and Proficiency		Percentage and Proficiency	
TOTAL						
State	9 (1.8)	42 (3.1)	49 (3.7)	3 (1.0)	41 (3.4)	15 (2.3)
	204 (4.6)	223 (2.0)	217 (2.3)	*** (***.*)	219 (3.1)	214 (3.5)
Nation	11 (1.4)	40 (2.4)	55 (2.7)	3 (0.9)	42 (3.0)	18 (1.8)
	206 (2.9)	221 (2.4)	220 (2.2)	211 (5.4)!	219 (2.6)	215 (2.0)
PARENTS' EDUCATION						
College graduate						
State	8 (1.6)	45 (4.1)	53 (4.1)	3 (1.8)	44 (4.0)	11 (2.1)
	202 (7.2)!	230 (3.0)	222 (3.5)	*** (***.*)	227 (4.0)	218 (6.1)
Nation	10 (1.8)	43 (3.0)	57 (3.2)	2 (0.8)	45 (3.5)	15 (1.7)
	210 (4.1)	230 (3.1)	228 (2.8)	*** (***.*)	228 (3.5)	221 (3.4)
Some after HS						
State	8 (2.4)	41 (4.5)	49 (4.7)	3 (2.1)	44 (4.0)	15 (3.4)
	*** (***.*)	232 (3.7)	224 (3.2)	*** (***.*)	231 (4.0)	*** (***.*)
Nation	10 (2.3)	43 (3.4)	58 (4.1)	4 (1.6)	41 (5.1)	19 (3.4)
	*** (***.*)	226 (5.1)	225 (4.1)	*** (***.*)	227 (5.0)	222 (4.9)!
HS graduate						
State	14 (3.6)	38 (3.9)	46 (4.7)	3 (1.2)	38 (4.4)	16 (3.3)
	*** (***.*)	217 (3.6)	215 (3.3)	*** (***.*)	212 (4.7)	*** (***.*)
Nation	8 (1.8)	36 (3.2)	50 (4.4)	4 (1.9)	35 (3.6)	19 (2.8)
	*** (***.*)	215 (3.6)	214 (3.1)	*** (***.*)	212 (3.4)	218 (4.9)
HS non-graduate						
State	16 (4.8)	27 (5.3)	36 (6.1)	2 (0.7)	37 (6.8)	13 (3.9)
	*** (***.*)	*** (***.*)	*** (***.*)	*** (***.*)	*** (***.*)	*** (***.*)
Nation	10 (2.5)	34 (5.0)	48 (4.5)	2 (1.4)	37 (5.7)	23 (3.6)
	*** (***.*)	*** (***.*)	202 (5.4)	*** (***.*)	194 (5.0)	*** (***.*)
I don't know						
State	9 (2.2)	42 (3.7)	48 (4.2)	2 (0.7)	39 (4.3)	16 (2.9)
	196 (5.0)!	217 (2.2)	210 (2.2)	*** (***.*)	212 (3.5)	207 (4.3)!
Nation	14 (1.9)	39 (3.0)	53 (2.9)	3 (1.0)	41 (3.2)	20 (2.3)
	199 (3.1)	215 (2.6)	213 (2.1)	*** (***.*)	214 (2.5)	210 (2.4)
GENDER						
Male						
State	9 (1.9)	40 (3.1)	49 (3.9)	3 (1.4)	42 (3.7)	15 (2.5)
	200 (6.2)	220 (2.8)	213 (2.5)	*** (***.*)	217 (3.9)	211 (4.6)
Nation	12 (1.7)	41 (2.8)	57 (2.9)	2 (0.8)	42 (3.3)	18 (2.0)
	201 (3.3)	218 (2.8)	215 (2.4)	*** (***.*)	215 (3.1)	212 (2.1)
Female						
State	9 (1.8)	44 (3.4)	49 (3.9)	2 (0.7)	40 (3.3)	15 (2.4)
	209 (4.7)	226 (1.9)	220 (2.5)	*** (***.*)	222 (3.0)	217 (4.4)
Nation	11 (1.4)	40 (2.3)	52 (2.7)	4 (1.2)	41 (2.8)	18 (1.9)
	211 (3.9)	225 (2.7)	225 (2.3)	216 (5.1)!	224 (2.6)	219 (3.1)

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within ± 2 standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). The percentages may not total 100 percent because the "Moderate Emphasis" category is not included. ! Interpret with caution -- the nature of the sample does not allow accurate determination of the variability of this statistic. *** Sample size is insufficient to permit a reliable estimate (fewer than 62 students).

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TABLE A12 (continued) | **Teachers' Reports on Emphasis Given to Specific Methods for Teaching Reading**

	Literature-based Reading		Reading Across the Content Areas		Individualized Reading Programs	
	Heavy Emphasis	Little or No Emphasis	Heavy Emphasis	Little or No Emphasis	Heavy Emphasis	Little or No Emphasis
	Percentage and Proficiency		Percentage and Proficiency		Percentage and Proficiency	
TOTAL						
State	46 (3.9)	10 (1.9)	48 (3.7)	4 (1.3)	5 (1.3)	60 (4.1)
	220 (2.1)	211 (6.8)!	221 (2.2)	220 (4.5)!	207 (7.6)!	217 (1.9)
Nation	50 (3.1)	11 (1.9)	49 (2.7)	9 (2.1)	11 (1.6)	54 (2.8)
	220 (2.0)	208 (3.2)	216 (2.0)	214 (4.4)!	216 (3.5)	219 (1.8)
RACE/ ETHNICITY						
White						
State	50 (4.4)	8 (1.8)	50 (4.1)	4 (1.5)	4 (1.1)	59 (4.5)
	225 (2.0)	224 (4.6)!	226 (1.9)	222 (4.7)!	221 (7.3)!	225 (1.7)
Nation	52 (3.9)	11 (2.1)	49 (3.1)	9 (2.5)	11 (1.9)	56 (3.2)
	228 (2.1)	214 (3.6)	224 (2.3)	218 (4.5)!	226 (3.4)	225 (2.1)
Black						
State	29 (7.0)	17 (5.3)	38 (7.8)	2 (1.4)	7 (4.1)	69 (8.1)
	194 (4.5)!	*** (**.*)	198 (5.0)!	*** (**.*)	*** (**.*)	187 (4.5)
Nation	45 (4.1)	16 (3.0)	54 (4.5)	7 (2.3)	12 (2.8)	43 (4.4)
	193 (2.8)	192 (3.1)!	191 (2.2)	*** (**.*)	196 (4.3)!	197 (2.7)
Hispanic						
State	37 (4.9)	14 (4.0)	47 (6.7)	4 (2.0)	11 (5.9)	56 (7.1)
	195 (4.7)	*** (**.*)	200 (3.9)!	*** (**.*)	*** (**.*)	197 (4.4)
Nation	47 (3.7)	11 (2.6)	46 (3.4)	12 (3.3)	17 (3.0)	50 (5.2)
	198 (3.4)	206 (5.1)!	198 (3.6)	*** (**.*)	192 (5.4)!	206 (3.6)
TYPE OF COMMUNITY						
Adv. urban						
State	67 (13.0)!	5 (4.8)!	69 (13.2)!	4 (3.9)!	11 (5.0)!	35 (13.8)!
	240 (5.7)!	*** (**.*)	238 (6.2)!	*** (**.*)	*** (**.*)	239 (4.9)!
Nation	61 (14.1)!	8 (5.9)!	62 (12.1)!	16 (9.1)!	7 (4.1)!	52 (9.4)!
	245 (8.0)!	*** (**.*)	242 (8.4)!	*** (**.*)	*** (**.*)	245 (10.0)!
Disadv. urban						
State	29 (8.3)!	15 (6.1)!	32 (10.0)!	2 (1.9)!	13 (7.5)!	71 (10.2)!
	183 (5.2)!	*** (**.*)	192 (3.8)!	*** (**.*)	*** (**.*)	195 (7.3)!
Nation	44 (8.3)	8 (5.3)	59 (7.2)	3 (1.4)	14 (3.8)	39 (6.6)
	185 (7.1)!	*** (**.*)	186 (4.4)!	*** (**.*)	187 (6.4)!	196 (5.1)!
Extreme rural						
State	24 (12.5)!	9 (8.1)!	25 (12.1)!	18 (9.5)!	2 (1.9)!	75 (10.6)!
	*** (**.*)	*** (**.*)	*** (**.*)	*** (**.*)	*** (**.*)	227 (4.0)!
Nation	52 (8.4)	20 (7.6)	51 (8.8)	12 (4.1)	15 (5.3)	55 (9.8)
	225 (4.0)	206 (4.9)!	214 (4.3)!	*** (**.*)	217 (5.7)!	222 (4.9)!
Other						
State	51 (6.1)	8 (2.6)	55 (5.0)	3 (1.5)	4 (1.4)	55 (5.7)
	219 (1.8)	216 (7.8)!	219 (2.3)	*** (**.*)	*** (**.*)	222 (1.8)
Nation	50 (4.1)	10 (2.0)	47 (3.2)	9 (2.7)	10 (1.9)	56 (3.3)
	220 (2.3)	209 (3.5)	219 (2.2)	212 (4.6)!	220 (3.9)!	219 (2.1)

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TABLE A12 (continued)

Teachers' Reports on Emphasis Given to Specific Methods for Teaching Reading

	Literature-based Reading		Reading Across the Content Areas		Individualized Reading Programs	
	Heavy Emphasis	Little or No Emphasis	Heavy Emphasis	Little or No Emphasis	Heavy Emphasis	Little or No Emphasis
	Percentage and Proficiency		Percentage and Proficiency		Percentage and Proficiency	
TOTAL						
State	46 (3.9)	10 (1.9)	48 (3.7)	4 (1.3)	5 (1.3)	60 (4.1)
	220 (2.1)	211 (6.8)!	221 (2.2)	220 (4.5)!	207 (7.6)!	217 (1.9)
Nation	50 (3.1)	11 (1.9)	49 (2.7)	9 (2.1)	11 (1.6)	54 (2.8)
	220 (2.0)	208 (3.2)	216 (2.0)	214 (4.4)!	216 (3.5)	219 (1.8)
PARENTS' EDUCATION						
College graduate						
State	47 (4.1)	8 (1.8)	51 (4.2)	4 (1.4)	6 (1.6)	56 (5.2)
	226 (3.6)	216 (6.7)!	226 (3.3)	*** (***.*)	*** (***.*)	223 (2.7)
Nation	54 (3.5)	9 (1.9)	50 (3.2)	8 (2.1)	11 (1.9)	55 (3.2)
	228 (2.8)	216 (5.1)!	224 (3.0)	226 (6.9)!	224 (5.0)	228 (2.4)
Some after HS						
State	50 (5.0)	10 (3.1)	50 (5.1)	5 (2.5)	3 (1.2)	58 (5.6)
	230 (3.5)	*** (***.*)	229 (3.2)	*** (***.*)	*** (***.*)	224 (3.8)
Nation	55 (4.9)	13 (3.2)	51 (4.8)	8 (2.6)	8 (1.7)	58 (3.9)
	225 (3.6)	*** (***.*)	226 (3.6)	*** (***.*)	*** (***.*)	224 (2.8)
HS graduate						
State	43 (4.8)	12 (2.9)	44 (4.1)	7 (2.4)	7 (2.3)	63 (5.3)
	214 (3.1)	*** (***.*)	218 (3.1)	*** (***.*)	*** (***.*)	215 (3.4)
Nation	48 (4.7)	11 (3.3)	48 (3.8)	10 (3.1)	10 (2.6)	54 (3.8)
	214 (2.9)	*** (***.*)	211 (2.9)	*** (***.*)	*** (***.*)	215 (3.8)
HS non-graduate						
State	40 (7.0)	9 (3.4)	42 (5.1)	4 (2.8)	6 (3.5)	58 (5.6)
	*** (***.*)	*** (***.*)	*** (***.*)	*** (***.*)	*** (***.*)	*** (***.*)
Nation	45 (4.3)	12 (2.5)	41 (5.1)	10 (2.7)	10 (2.5)	49 (4.9)
	195 (6.2)	*** (***.*)	195 (4.3)	*** (***.*)	*** (***.*)	199 (6.8)
I don't know						
State	43 (4.4)	10 (2.5)	46 (4.0)	3 (1.1)	4 (1.9)	66 (3.9)
	213 (1.9)	208 (11.4)!	214 (2.2)	*** (***.*)	*** (***.*)	210 (2.5)
Nation	47 (3.3)	13 (2.0)	49 (3.1)	10 (2.4)	13 (2.0)	52 (3.5)
	214 (2.2)	202 (3.3)	210 (2.1)	209 (4.8)!	210 (4.2)	213 (2.2)
GENDER						
Male						
State	44 (4.0)	10 (2.2)	48 (3.7)	5 (1.6)	5 (1.5)	58 (4.2)
	216 (2.6)	208 (7.9)!	218 (2.5)	*** (***.*)	*** (***.*)	214 (2.6)
Nation	52 (3.4)	11 (1.9)	50 (3.0)	9 (2.3)	10 (1.6)	55 (3.0)
	216 (2.3)	202 (4.0)	212 (2.4)	208 (4.8)!	211 (4.4)	216 (2.0)
Female						
State	48 (4.1)	9 (1.8)	48 (4.0)	4 (1.1)	5 (1.3)	62 (4.2)
	223 (2.2)	213 (6.5)!	223 (2.4)	*** (***.*)	*** (***.*)	219 (1.9)
Nation	48 (3.1)	12 (2.0)	49 (2.7)	10 (2.1)	12 (1.9)	53 (2.9)
	225 (2.1)	214 (3.5)	221 (2.2)	220 (5.1)!	221 (3.6)	223 (2.1)

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within ± 2 standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). The percentages may not total 100 percent because the "Moderate Emphasis" category is not included. ! Interpret with caution -- the nature of the sample does not allow accurate determination of the variability of this statistic. *** Sample size is insufficient to permit a reliable estimate (fewer than 62 students).

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TABLE A13 | **Teachers' Reports on Instructional Materials for Reading**

	Primarily Basal	Primarily Trade Books	Both Basal and Trade Books	Other
	Percentage and Proficiency	Percentage and Proficiency	Percentage and Proficiency	Percentage and Proficiency
TOTAL				
State	37 (3.8)	8 (1.5)	51 (3.6)	4 (1.7)
	214 (2.2)	228 (3.5)	218 (2.3)	221 (6.3)!
Nation	33 (2.6)	13 (2.3)	51 (3.6)	3 (1.1)
	214 (2.2)	224 (4.5)	218 (1.5)	209 (6.5)!
RACE/ ETHNICITY				
White				
State	34 (4.0)	10 (1.7)	52 (4.0)	4 (2.0)
	223 (2.1)	231 (3.8)	225 (1.8)	225 (5.7)!
Nation	31 (3.1)	14 (2.7)	52 (4.1)	3 (1.1)
	221 (2.7)	230 (4.1)	225 (1.7)	216 (6.7)!
Black				
State	43 (8.0)	3 (1.3)	54 (8.1)	1 (0.7)
	185 (3.3)	*** (**.*)	190 (6.6)!	*** (**.*)
Nation	42 (3.8)	8 (2.6)	46 (4.2)	3 (1.6)
	198 (2.6)	*** (**.*)	193 (2.5)	*** (**.*)
Hispanic				
State	51 (5.6)	5 (1.9)	42 (5.3)	2 (1.1)
	196 (4.7)	*** (**.*)	197 (4.1)	*** (**.*)
Nation	32 (3.8)	14 (2.3)	49 (3.9)	5 (2.7)
	200 (4.5)	205 (7.6)	205 (3.1)	*** (**.*)
TYPE OF COMMUNITY				
Adv. urban				
State	5 (4.6)!	30 (8.0)!	55 (10.7)!	10 (7.8)!
	*** (**.*)	*** (**.*)	240 (4.9)!	*** (**.*)
Nation	39 (15.0)!	15 (15.7)!	44 (15.1)!	2 (1.3)!
	238 (11.5)!	*** (**.*)	240 (4.0)!	*** (**.*)
Disadv. urban				
State	68 (10.1)!	1 (0.9)!	31 (10.0)!	0 (0.0)!
	196 (6.9)!	*** (**.*)	190 (5.2)!	*** (**.*)
Nation	46 (8.6)	14 (6.3)	38 (8.2)	2 (1.3)
	196 (3.6)!	185 (15.7)!	187 (3.4)!	*** (**.*)
Extreme rural				
State	39 (18.2)!	2 (2.1)!	58 (17.8)!	0 (0.0)!
	*** (**.*)	*** (**.*)	231 (3.2)!	*** (**.*)
Nation	30 (5.1)	12 (7.7)	52 (9.0)	6 (4.2)
	215 (4.3)!	*** (**.*)	224 (3.7)!	*** (**.*)
Other				
State	34 (5.2)	9 (2.4)	52 (5.1)	5 (2.8)
	223 (3.0)	224 (3.4)!	218 (2.3)	*** (**.*)
Nation	31 (3.5)	13 (2.7)	52 (3.6)	3 (1.0)
	215 (2.6)	225 (3.2)!	218 (1.7)	215 (7.5)!

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TABLE A13 (continued)

Teachers' Reports on Instructional Materials for Reading

	Primarily Basal	Primarily Trade Books	Both Basal and Trade Books	Other
	Percentage and Proficiency	Percentage and Proficiency	Percentage and Proficiency	Percentage and Proficiency
TOTAL				
State	37 (3.8)	8 (1.5)	51 (3.6)	4 (1.7)
	214 (2.2)	228 (3.5)	218 (2.3)	221 (6.3)!
Nation	33 (2.6)	13 (2.3)	51 (3.6)	3 (1.1)
	214 (2.2)	224 (4.5)	218 (1.5)	209 (6.5)!
PARENTS' EDUCATION				
College graduate				
State	32 (4.3)	12 (2.3)	51 (4.1)	5 (2.3)
	221 (3.4)	235 (5.3)!	223 (3.2)	*** (***.*)
Nation	32 (3.2)	15 (2.9)	50 (3.7)	3 (0.9)
	222 (3.2)	234 (5.9)!	226 (1.8)	*** (***.*)
Some after HS				
State	39 (5.2)	7 (2.7)	52 (5.2)	2 (1.2)
	218 (4.3)	*** (***.*)	230 (3.7)	*** (***.*)
Nation	29 (3.8)	16 (4.2)	53 (5.5)	2 (1.0)
	223 (5.0)	*** (***.*)	223 (3.6)	*** (***.*)
HS graduate				
State	43 (4.8)	6 (1.7)	49 (4.9)	2 (1.3)
	213 (3.6)	*** (***.*)	216 (4.0)	*** (***.*)
Nation	35 (3.8)	9 (2.3)	52 (4.8)	3 (1.4)
	214 (3.9)	*** (***.*)	214 (2.9)	*** (***.*)
HS non-graduate				
State	51 (6.7)	3 (2.8)	43 (6.6)	3 (1.9)
	*** (***.*)	*** (***.*)	*** (***.*)	*** (***.*)
Nation	34 (4.1)	10 (3.0)	52 (4.7)	5 (1.9)
	*** (***.*)	*** (***.*)	201 (5.3)	*** (***.*)
I don't know				
State	38 (4.3)	6 (1.5)	52 (4.1)	4 (1.8)
	208 (2.8)	*** (***.*)	212 (2.6)	*** (***.*)
Nation	34 (2.8)	13 (2.2)	50 (3.7)	4 (1.6)
	208 (2.4)	217 (5.3)	213 (1.9)	*** (***.*)
GENDER				
Male				
State	36 (4.3)	9 (1.8)	50 (4.1)	3 (1.6)
	214 (2.4)	229 (3.6)	214 (3.0)	*** (***.*)
Nation	32 (2.8)	14 (2.6)	51 (3.9)	3 (1.1)
	210 (2.8)	219 (5.7)	215 (1.8)	*** (***.*)
Female				
State	36 (3.4)	7 (1.5)	52 (3.4)	4 (1.9)
	215 (2.7)	227 (5.1)!	222 (2.2)	*** (***.*)
Nation	34 (2.7)	13 (2.1)	50 (3.3)	3 (1.1)
	218 (2.4)	229 (4.0)	222 (1.7)	*** (***.*)

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within ± 2 standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). ! Interpret with caution -- the nature of the sample does not allow accurate determination of the variability of this statistic. *** Sample size is insufficient to permit a reliable estimate (fewer than 62 students).

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TABLE A14 | **Teachers' Reports on the Availability of Resources**

	I Get All the Resources I Need	I Get Most of the Resources I Need	I Get Some or None of the Resources I Need
	Percentage and Proficiency	Percentage and Proficiency	Percentage and Proficiency
TOTAL			
State	7 (1.7)	45 (3.5)	48 (3.6)
	222 (7.2)!	218 (1.7)	217 (2.4)
Nation	11 (1.7)	51 (2.9)	39 (3.5)
	221 (3.1)	219 (1.8)	214 (1.7)
RACE/ ETHNICITY			
White			
State	7 (2.0)	46 (4.1)	47 (4.2)
	232 (5.2)!	224 (1.6)	224 (2.1)
Nation	11 (2.0)	53 (3.4)	36 (4.2)
	230 (2.8)	225 (1.9)	222 (1.9)
Black			
State	6 (3.1)	41 (6.9)	54 (7.6)
	*** (** *)	193 (3.9)!	187 (5.5)!
Nation	10 (1.9)	40 (4.0)	49 (4.0)
	195 (5.0)	193 (2.6)	197 (2.2)
Hispanic			
State	8 (3.2)	48 (4.3)	43 (4.6)
	*** (** *)	202 (3.3)	199 (4.7)
Nation	10 (1.9)	50 (4.2)	41 (4.2)
	200 (6.3)	204 (3.0)	198 (2.8)
TYPE OF COMMUNITY			
Adv. urban			
State	15 (6.6)!	38 (16.0)!	48 (18.0)!
	*** (** *)	239 (4.5)!	243 (6.5)!
Nation	5 (3.9)!	65 (9.6)!	30 (9.9)!
	*** (** *)	238 (7.4)!	243 (8.5)!
Disadv. urban			
State	6 (3.8)!	45 (11.8)!	49 (11.2)!
	*** (** *)	196 (7.7)!	192 (4.9)!
Nation	6 (3.1)	35 (6.9)	58 (7.9)
	*** (** *)	184 (5.2)!	196 (3.6)!
Extreme rural			
State	21 (9.3)!	22 (9.3)!	58 (9.3)!
	*** (** *)	*** (** *)	224 (3.2)!
Nation	18 (9.6)	45 (6.4)	36 (8.5)
	229 (3.6)!	222 (6.3)!	216 (3.7)!
Other			
State	5 (2.0)	51 (4.6)	44 (4.6)
	*** (** *)	221 (1.7)	221 (2.3)
Nation	10 (1.5)	52 (3.1)	38 (3.5)
	220 (3.7)	219 (1.7)	215 (2.0)

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TABLE A14 (continued)

Teachers' Reports on the Availability of Resources

	I Get All the Resources I Need	I Get Most of the Resources I Need	I Get Some or None of the Resources I Need
	Percentage and Proficiency	Percentage and Proficiency	Percentage and Proficiency
TOTAL			
State	7 (1.7) 222 (7.2)!	45 (3.5) 218 (1.7)	48 (3.6) 217 (2.4)
Nation	11 (1.7) 221 (3.1)	51 (2.9) 219 (1.8)	39 (3.5) 214 (1.7)
PARENTS' EDUCATION			
College graduate			
State	7 (2.4) *** (** *)	44 (4.4) 224 (3.0)	49 (4.2) 224 (3.2)
Nation	11 (2.0) 227 (4.9)	51 (3.3) 227 (2.5)	37 (4.0) 224 (2.4)
Some after HS			
State	7 (2.5) *** (** *)	44 (4.3) 226 (3.8)	50 (4.5) 225 (3.2)
Nation	10 (2.5) *** (** *)	54 (4.2) 223 (2.5)	36 (5.2) 225 (5.5)
HS graduate			
State	5 (2.0) *** (** *)	45 (4.4) 217 (3.4)	50 (4.2) 211 (3.5)
Nation	11 (2.6) *** (** *)	49 (4.6) 217 (3.6)	39 (4.9) 209 (2.3)
HS non-graduate			
State	5 (2.6) *** (** *)	46 (5.7) *** (** *)	48 (5.7) *** (** *)
Nation	8 (2.4) *** (** *)	39 (4.6) 197 (5.4)	52 (4.9) 199 (5.0)
I don't know			
State	7 (2.1) *** (** *)	45 (3.6) 211 (1.9)	48 (3.9) 211 (2.9)
Nation	10 (1.7) 218 (4.1)	51 (2.9) 213 (2.1)	38 (3.2) 207 (1.9)
GENDER			
Male			
State	7 (2.1) 226 (7.4)!	44 (3.8) 215 (2.1)	49 (3.8) 214 (3.0)
Nation	10 (1.8) 217 (3.5)	51 (3.0) 215 (2.0)	38 (3.7) 211 (2.3)
Female			
State	7 (1.7) 218 (8.3)!	46 (3.6) 221 (1.9)	47 (3.9) 220 (2.3)
Nation	11 (1.8) 225 (3.6)	50 (2.9) 223 (1.8)	39 (3.4) 218 (1.6)

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within ± 2 standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). ! Interpret with caution -- the nature of the sample does not allow accurate determination of the variability of this statistic. *** Sample size is insufficient to permit a reliable estimate (fewer than 62 students).

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TABLE A15A | **Teachers' Reports on Frequency of Use of Children's Newspapers and/or Magazines**

	Almost Every Day	Once or Twice a Week	Once or Twice a Month	Never or Hardly Ever
	Percentage and Proficiency	Percentage and Proficiency	Percentage and Proficiency	Percentage and Proficiency
TOTAL				
State	2 (1.2)	31 (3.6)	32 (3.8)	35 (3.5)
	*** (** *)	220 (2.5)	216 (2.7)	217 (2.8)
Nation	1 (0.4)	31 (3.1)	32 (2.4)	36 (2.6)
	*** (** *)	219 (2.3)	214 (2.0)	219 (2.2)
RACE/ ETHNICITY				
White				
State	1 (0.8)	31 (4.1)	32 (4.3)	35 (4.0)
	*** (** *)	226 (2.3)	224 (2.2)	225 (2.4)
Nation	1 (0.4)	32 (3.8)	29 (2.7)	38 (2.9)
	*** (** *)	226 (2.4)	222 (2.3)	225 (2.3)
Black				
State	9 (5.7)	29 (7.0)	30 (6.6)	32 (7.5)
	*** (** *)	192 (5.5)!	189 (5.4)!	183 (8.3)!
Nation	1 (0.7)	28 (3.6)	43 (4.2)	28 (4.1)
	*** (** *)	195 (3.5)	196 (2.6)	193 (4.0)
Hispanic				
State	1 (0.6)	28 (4.5)	33 (5.3)	38 (5.9)
	*** (** *)	*** (** *)	*** (** *)	200 (3.9)
Nation	3 (1.3)	28 (3.1)	34 (3.1)	36 (3.4)
	*** (** *)	205 (4.2)	197 (4.6)	206 (3.6)
TYPE OF COMMUNITY				
Adv. urban				
State	0 (0.0)!	16 (11.6)!	46 (16.8)!	38 (17.9)!
	*** (** *)	*** (** *)	235 (3.6)!	240 (4.6)!
Nation	1 (1.3)!	27 (9.0)!	26 (8.4)!	46 (15.0)!
	*** (** *)	*** (** *)	*** (** *)	250 (10.5)!
Disadv. urban				
State	8 (5.2)!	49 (7.2)!	23 (6.7)!	20 (5.6)!
	*** (** *)	197 (6.1)!	185 (6.1)!	*** (** *)
Nation	3 (2.0)	18 (3.7)	46 (7.1)	34 (7.2)
	*** (** *)	192 (5.9)!	195 (3.9)!	187 (6.7)!
Extreme rural				
State	0 (0.0)!	39 (9.5)!	38 (15.4)!	23 (10.6)!
	*** (** *)	*** (** *)	*** (** *)	*** (** *)
Nation	2 (1.7)	44 (9.3)	21 (6.0)	33 (7.6)
	*** (** *)	219 (4.6)!	216 (8.4)!	222 (2.8)!
Other				
State	2 (1.8)	32 (4.8)	27 (4.6)	38 (4.5)
	*** (** *)	225 (2.0)	218 (2.5)	218 (2.3)
Nation	1 (0.3)	30 (3.3)	33 (2.8)	37 (2.8)
	*** (** *)	220 (2.7)	215 (2.3)	219 (1.9)

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TABLE A15A (continued)

Teachers' Reports on Frequency of Use of Children's Newspapers and/or Magazines

	Almost Every Day	Once or Twice a Week	Once or Twice a Month	Never or Hardly Ever
	Percentage and Proficiency	Percentage and Proficiency	Percentage and Proficiency	Percentage and Proficiency
TOTAL				
State	2 (1.2)	31 (3.6)	32 (3.8)	35 (3.5)
	*** (**.*)	220 (2.5)	216 (2.7)	217 (2.8)
Nation	1 (0.4)	31 (3.1)	32 (2.4)	36 (2.6)
	*** (**.*)	219 (2.3)	214 (2.0)	219 (2.2)
PARENTS' EDUCATION				
College graduate				
State	2 (1.4)	31 (4.4)	33 (4.4)	33 (4.1)
	*** (**.*)	225 (4.3)	223 (3.9)	226 (3.6)
Nation	1 (0.5)	31 (3.6)	30 (2.7)	38 (3.3)
	*** (**.*)	226 (2.7)	220 (2.6)	229 (3.3)
Some after HS				
State	2 (1.3)	34 (4.6)	31 (5.8)	33 (4.6)
	*** (**.*)	225 (4.1)	227 (5.2)!	225 (3.9)
Nation	0 (0.1)	34 (5.0)	29 (3.5)	37 (4.5)
	*** (**.*)	230 (5.6)	216 (4.0)	223 (3.8)
HS graduate				
State	2 (1.4)	31 (4.4)	30 (4.9)	37 (4.6)
	*** (**.*)	219 (3.4)	213 (4.5)	210 (4.7)
Nation	1 (0.7)	34 (4.6)	31 (3.2)	35 (4.0)
	*** (**.*)	215 (4.4)	213 (4.4)	212 (3.3)
HS non-graduate				
State	2 (2.2)	29 (6.0)	29 (6.6)	40 (7.4)
	*** (**.*)	*** (**.*)	*** (**.*)	*** (**.*)
Nation	1 (0.7)	36 (4.8)	33 (5.5)	30 (5.2)
	*** (**.*)	201 (5.9)	189 (5.0)!	*** (**.*)
I don't know				
State	2 (1.1)	32 (4.2)	32 (4.2)	34 (3.9)
	*** (**.*)	215 (2.8)	209 (3.1)	209 (3.6)
Nation	1 (0.5)	28 (3.1)	35 (2.8)	36 (2.7)
	*** (**.*)	214 (2.8)	210 (2.7)	211 (2.2)
GENDER				
Male				
State	2 (1.4)	30 (3.7)	31 (3.9)	37 (3.7)
	*** (**.*)	219 (3.0)	212 (3.3)	214 (3.8)
Nation	1 (0.3)	30 (3.5)	31 (2.5)	37 (2.9)
	*** (**.*)	216 (3.1)	211 (2.6)	214 (2.6)
Female				
State	2 (1.1)	31 (3.8)	33 (4.1)	33 (3.6)
	*** (**.*)	220 (2.9)	220 (2.9)	220 (2.4)
Nation	1 (0.4)	31 (3.0)	33 (2.6)	35 (2.6)
	*** (**.*)	223 (2.3)	217 (2.1)	224 (2.2)

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within ± 2 standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). ! Interpret with caution -- the nature of the sample does not allow accurate determination of the variability of this statistic. *** Sample size is insufficient to permit a reliable estimate (fewer than 62 students).

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TABLE A15B | **Teachers' Reports on Frequency of Use of Reading Kits**

	Almost Every Day	Once or Twice a Week	Once or Twice a Month	Never or Hardly Ever
	Percentage and Proficiency	Percentage and Proficiency	Percentage and Proficiency	Percentage and Proficiency
TOTAL				
State	7 (1.9)	6 (1.6)	20 (3.1)	67 (3.3)
	219 (5.5)!	212 (5.5)!	211 (3.4)	220 (2.0)
Nation	7 (1.3)	15 (2.2)	20 (2.4)	58 (3.2)
	208 (4.0)	213 (3.2)	219 (2.3)	219 (2.2)
RACE/ ETHNICITY				
White				
State	8 (2.1)	4 (1.3)	19 (3.1)	69 (3.1)
	223 (5.3)!	*** (**.*)	222 (2.4)	226 (1.7)
Nation	6 (1.3)	13 (2.6)	20 (3.0)	61 (3.9)
	221 (5.4)!	223 (3.4)	225 (2.3)	225 (2.3)
Black				
State	2 (1.2)	16 (6.7)	28 (7.7)	54 (10.9)
	*** (**.*)	*** (**.*)	182 (3.7)!	188 (6.2)
Nation	15 (3.3)	21 (3.5)	18 (3.1)	46 (4.8)
	193 (5.9)!	193 (4.3)	198 (3.9)	195 (3.4)
Hispanic				
State	8 (2.7)	5 (2.0)	25 (5.9)	62 (5.8)
	*** (**.*)	*** (**.*)	*** (**.*)	198 (3.7)
Nation	9 (1.4)	20 (5.7)	18 (3.1)	54 (4.5)
	187 (6.9)	200 (4.5)!	206 (6.8)	205 (3.4)
TYPE OF COMMUNITY				
Adv. urban				
State	10 (6.5)!	7 (7.4)!	12 (8.8)!	71 (12.6)!
	*** (**.*)	*** (**.*)	*** (**.*)	240 (3.9)!
Nation	7 (4.2)!	3 (2.1)!	20 (9.4)!	70 (10.7)!
	*** (**.*)	*** (**.*)	*** (**.*)	243 (7.6)!
Disadv. urban				
State	5 (3.7)!	6 (4.7)!	32 (9.6)!	56 (9.3)!
	*** (**.*)	*** (**.*)	181 (5.0)!	199 (7.8)!
Nation	7 (2.8)	29 (5.6)	15 (5.2)	49 (7.5)
	*** (**.*)	189 (5.4)!	191 (7.9)!	194 (6.5)!
Extreme rural				
State	7 (4.9)!	6 (4.6)!	0 (0.0)!	87 (9.1)!
	*** (**.*)	*** (**.*)	*** (**.*)	228 (2.9)!
Nation	9 (4.2)	9 (6.1)	23 (5.4)	59 (8.3)
	*** (**.*)	*** (**.*)	225 (5.2)!	221 (4.3)!
Other				
State	9 (3.0)	5 (2.0)	24 (4.2)	62 (4.7)
	216 (4.3)!	*** (**.*)	218 (3.0)!	221 (1.8)
Nation	7 (1.5)	15 (2.2)	19 (2.8)	58 (3.5)
	213 (4.0)!	216 (3.6)	218 (2.2)	219 (2.4)

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TABLE A15B (continued)

Teachers' Reports on Frequency of Use of Reading Kits

	Almost Every Day	Once or Twice a Week	Once or Twice a Month	Never or Hardly Ever
	Percentage and Proficiency	Percentage and Proficiency	Percentage and Proficiency	Percentage and Proficiency
TOTAL				
State	7 (1.9)	6 (1.6)	20 (3.1)	67 (3.3)
	219 (5.5)!	212 (5.5)!	211 (3.4)	220 (2.0)
Nation	7 (1.3)	15 (2.2)	20 (2.4)	58 (3.2)
	208 (4.0)	213 (3.2)	219 (2.3)	219 (2.2)
PARENTS' EDUCATION				
College graduate				
State	7 (2.0)	7 (2.1)	20 (3.5)	66 (3.9)
	*** (***.*)	*** (***.*)	213 (4.9)	228 (2.5)
Nation	7 (1.5)	13 (2.3)	20 (2.9)	60 (3.3)
	221 (5.5)!	219 (4.7)	226 (3.8)	228 (2.5)
Some after HS				
State	8 (3.0)	9 (2.4)	23 (4.3)	61 (4.7)
	*** (***.*)	*** (***.*)	*** (***.*)	228 (4.1)
Nation	7 (2.0)	18 (4.8)	18 (3.6)	57 (6.0)
	*** (***.*)	225 (8.6)!	*** (***.*)	223 (3.8)
HS graduate				
State	9 (2.8)	5 (2.1)	23 (3.6)	63 (4.2)
	*** (***.*)	*** (***.*)	*** (***.*)	215 (3.5)
Nation	8 (1.9)	12 (2.7)	20 (2.9)	60 (3.8)
	*** (***.*)	207 (7.0)!	217 (3.3)	215 (3.9)
HS non-graduate				
State	10 (3.9)	6 (3.0)	27 (6.3)	57 (5.0)
	*** (***.*)	*** (***.*)	*** (***.*)	*** (***.*)
Nation	10 (2.8)	20 (4.4)	16 (3.8)	54 (5.2)
	*** (***.*)	*** (***.*)	*** (***.*)	199 (5.7)
I don't know				
State	6 (1.9)	4 (1.3)	19 (3.5)	71 (3.7)
	*** (***.*)	*** (***.*)	206 (4.0)	212 (2.5)
Nation	8 (1.4)	16 (2.3)	19 (2.6)	57 (3.4)
	200 (4.2)!	208 (2.8)	213 (2.7)	213 (2.3)
GENDER				
Male				
State	7 (1.9)	5 (1.6)	19 (3.2)	69 (3.6)
	213 (6.4)!	*** (***.*)	208 (3.8)	217 (2.6)
Nation	7 (1.4)	14 (2.1)	20 (2.6)	59 (3.5)
	203 (5.1)!	206 (3.7)	215 (2.5)	216 (2.5)
Female				
State	7 (2.1)	6 (1.8)	21 (3.2)	65 (3.4)
	225 (6.2)!	216 (5.8)!	213 (4.1)	222 (1.9)
Nation	8 (1.3)	16 (2.3)	19 (2.3)	57 (3.1)
	213 (3.9)	218 (3.3)	223 (2.8)	223 (2.2)

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within ± 2 standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). ! Interpret with caution -- the nature of the sample does not allow accurate determination of the variability of this statistic. *** Sample size is insufficient to permit a reliable estimate (fewer than 62 students).

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TABLE A15C | **Teachers' Reports on Frequency of Use of Computer Software for Reading Instruction**

	Almost Every Day	Once or Twice a Week	Once or Twice a Month	Never or Hardly Ever
	Percentage and Proficiency	Percentage and Proficiency	Percentage and Proficiency	Percentage and Proficiency
TOTAL				
State	3 (1.3)	10 (2.1)	27 (3.2)	60 (3.7)
	*** (** *)	214 (3.9)!	221 (2.9)	216 (2.2)
Nation	4 (1.1)	21 (2.7)	23 (2.7)	52 (3.8)
	213 (4.1)!	213 (2.8)	217 (2.7)	219 (1.9)
RACE/ ETHNICITY				
White				
State	3 (1.7)	10 (2.2)	29 (3.5)	58 (3.9)
	*** (** *)	223 (3.4)!	225 (2.7)	225 (1.6)
Nation	3 (1.2)	17 (2.6)	26 (3.5)	53 (4.3)
	219 (4.9)!	223 (2.5)	223 (2.8)	226 (2.1)
Black				
State	0 (0.0)	17 (6.9)	12 (4.0)	71 (9.5)
	*** (** *)	*** (** *)	*** (** *)	167 (4.7)
Nation	6 (1.9)	36 (5.2)	16 (3.3)	42 (4.7)
	*** (** *)	193 (3.3)	193 (5.0)!	195 (3.2)
Hispanic				
State	2 (1.1)	10 (3.4)	32 (5.2)	57 (5.6)
	*** (** *)	*** (** *)	*** (** *)	194 (4.2)
Nation	3 (1.2)	25 (6.5)	18 (2.7)	54 (7.0)
	*** (** *)	205 (5.5)!	198 (6.0)	203 (2.4)
TYPE OF COMMUNITY				
Adv. urban				
State	0 (0.0)!	11 (8.3)!	42 (15.6)!	47 (17.4)!
	*** (** *)	*** (** *)	241 (8.9)!	241 (4.9)!
Nation	3 (2.5)!	12 (6.9)!	24 (12.2)!	61 (14.8)!
	*** (** *)	*** (** *)	*** (** *)	244 (9.2)!
Disadv. urban				
State	0 (0.0)!	19 (7.8)!	15 (6.8)!	67 (11.2)!
	*** (** *)	*** (** *)	*** (** *)	195 (7.3)!
Nation	6 (3.7)	29 (7.3)	7 (3.0)	58 (7.4)
	*** (** *)	189 (4.5)!	*** (** *)	193 (4.5)!
Extreme rural				
State	0 (0.0)!	18 (5.7)!	21 (8.2)!	61 (12.1)!
	*** (** *)	*** (** *)	*** (** *)	229 (4.1)!
Nation	6 (3.8)	15 (6.1)	30 (8.3)	48 (10.6)
	*** (** *)	213 (7.4)!	215 (6.5)!	224 (4.4)!
Other				
State	5 (2.4)	9 (2.6)	31 (3.8)	55 (4.7)
	*** (** *)	218 (5.1)!	219 (2.7)	220 (1.6)
Nation	3 (1.1)	22 (3.2)	24 (2.9)	51 (4.2)
	209 (7.3)!	215 (2.9)	218 (2.9)	219 (2.0)

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TABLE A15C (continued)

Teachers' Reports on Frequency of Use of Computer Software for Reading Instruction

	Almost Every Day	Once or Twice a Week	Once or Twice a Month	Never or Hardly Ever
	Percentage and Proficiency	Percentage and Proficiency	Percentage and Proficiency	Percentage and Proficiency
TOTAL				
State	3 (1.3) *** (**.*)	10 (2.1) 214 (3.9)!	27 (3.2) 221 (2.9)	60 (3.7) 216 (2.2)
Nation	4 (1.1) 213 (4.1)!	21 (2.7) 213 (2.8)	23 (2.7) 217 (2.7)	52 (3.8) 219 (1.9)
PARENTS' EDUCATION				
College graduate				
State	3 (1.3) *** (**.*)	10 (2.2) 217 (6.6)!	27 (4.6) 229 (4.4)!	60 (5.4) 223 (2.6)
Nation	4 (1.2) *** (**.*)	21 (3.2) 223 (3.7)	23 (3.5) 225 (3.2)	53 (4.6) 227 (2.6)
Some after HS				
State	6 (3.4) *** (**.*)	10 (2.9) *** (**.*)	28 (4.7) *** (**.*)	56 (4.6) 227 (4.2)
Nation	4 (1.3) *** (**.*)	19 (3.0) 214 (5.7)	26 (3.2) 227 (4.5)	51 (4.9) 224 (3.9)
HS graduate				
State	3 (1.6) *** (**.*)	13 (3.3) *** (**.*)	31 (4.2) 218 (3.4)	53 (4.0) 211 (3.8)
Nation	3 (1.1) *** (**.*)	23 (3.9) 209 (4.1)	20 (2.9) 212 (4.2)	54 (4.7) 216 (2.9)
HS non-graduate				
State	4 (1.8) *** (**.*)	13 (4.3) *** (**.*)	27 (5.5) *** (**.*)	56 (5.8) *** (**.*)
Nation	7 (2.9) *** (**.*)	27 (4.5) *** (**.*)	22 (3.5) *** (**.*)	44 (4.7) 200 (6.5)
I don't know				
State	2 (0.9) *** (**.*)	8 (2.4) *** (**.*)	26 (3.3) 213 (3.3)	64 (4.0) 209 (2.7)
Nation	4 (1.3) *** (**.*)	20 (2.9) 206 (3.0)	25 (3.1) 211 (3.5)	51 (4.0) 214 (2.0)
GENDER				
Male				
State	2 (1.3) *** (**.*)	10 (2.0) 216 (5.2)!	28 (3.4) 218 (3.3)	60 (4.1) 214 (2.8)
Nation	4 (1.1) 212 (5.3)!	20 (2.6) 208 (3.8)	24 (3.2) 213 (3.4)	52 (4.0) 216 (2.2)
Female				
State	3 (1.4) *** (**.*)	11 (2.4) 212 (3.6)!	26 (3.3) 224 (3.4)	60 (3.7) 219 (2.0)
Nation	4 (1.2) 214 (5.4)!	22 (3.0) 218 (2.5)	22 (2.4) 222 (2.7)	52 (3.8) 223 (2.1)

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within ± 2 standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). ! Interpret with caution -- the nature of the sample does not allow accurate determination of the variability of this statistic. *** Sample size is insufficient to permit a reliable estimate (fewer than 62 students).

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TABLE A15D | **Teachers' Reports on Frequency of Use of a Variety of Books**

	Almost Every Day	Once or Twice a Week	Once or Twice a Month	Never or Hardly Ever
	Percentage and Proficiency	Percentage and Proficiency	Percentage and Proficiency	Percentage and Proficiency
TOTAL				
State	35 (3.4) 222 (2.4)	30 (3.5) 212 (3.3)	29 (3.7) 220 (2.4)	6 (1.7) 209 (5.4)!
Nation	43 (3.6) 220 (2.4)	22 (2.4) 214 (2.5)	26 (3.0) 217 (2.3)	9 (1.5) 210 (3.4)
RACE/ ETHNICITY				
White				
State	38 (3.6) 227 (2.3)	27 (3.6) 224 (1.9)	30 (4.2) 225 (2.3)	5 (1.5) 218 (5.2)!
Nation	46 (4.5) 226 (2.3)	19 (2.8) 225 (2.7)	26 (3.6) 223 (2.3)	8 (1.7) 215 (3.9)!
Black				
State	25 (7.4) 192 (3.1)!	46 (9.7) 182 (6.2)!	20 (4.6) *** (** .*)	9 (4.3) *** (** .*)
Nation	31 (3.3) 191 (2.9)	31 (3.7) 197 (3.0)	28 (3.9) 196 (4.4)	10 (2.6) *** (** .*)
Hispanic				
State	30 (5.7) *** (** .*)	28 (5.3) *** (** .*)	33 (5.9) 204 (4.3)	9 (4.1) *** (** .*)
Nation	36 (4.8) 206 (4.2)	31 (5.6) 196 (4.2)!	26 (3.7) 204 (5.2)	7 (2.2) *** (** .*)
TYPE OF COMMUNITY				
Adv. urban				
State	78 (9.0)! 241 (4.8)!	12 (6.4)! *** (** .*)	9 (9.9)! *** (** .*)	0 (0.0)! *** (** .*)
Nation	43 (15.2)! 249 (9.2)!	20 (6.3)! *** (** .*)	25 (8.9)! *** (** .*)	11 (7.1)! *** (** .*)
Disadv. urban				
State	28 (5.4)! 194 (6.4)!	29 (8.4)! 182 (5.3)!	34 (7.1)! 202 (7.7)!	9 (5.1)! *** (** .*)
Nation	33 (6.6) 188 (5.5)!	35 (8.5) 190 (5.8)!	29 (7.6) 194 (5.9)!	3 (1.8) *** (** .*)
Extreme rural				
State	20 (8.5)! *** (** .*)	29 (12.7)! *** (** .*)	45 (15.9)! 224 (7.3)!	6 (4.1)! *** (** .*)
Nation	47 (9.9) 222 (3.6)!	21 (10.0) 223 (7.0)!	22 (7.3) 212 (9.0)!	9 (3.7) *** (** .*)
Other				
State	36 (5.4) 218 (2.5)	29 (4.7) 220 (2.3)	28 (5.8) 223 (3.2)!	7 (2.5) 216 (7.4)!
Nation	44 (4.4) 221 (2.5)	21 (2.5) 216 (2.9)	27 (3.4) 219 (2.3)	9 (2.2) 209 (3.3)!

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TABLE A15D (continued)

Teachers' Reports on Frequency of Use of a Variety of Books

	Almost Every Day	Once or Twice a Week	Once or Twice a Month	Never or Hardly Ever
	Percentage and Proficiency	Percentage and Proficiency	Percentage and Proficiency	Percentage and Proficiency
TOTAL				
State	35 (3.4) 222 (2.4)	30 (3.5) 212 (3.3)	29 (3.7) 220 (2.4)	6 (1.7) 209 (5.4)!
Nation	43 (3.6) 220 (2.4)	22 (2.4) 214 (2.5)	26 (3.0) 217 (2.3)	9 (1.5) 210 (3.4)
PARENTS' EDUCATION				
College graduate				
State	39 (4.5) 230 (3.6)	30 (3.7) 216 (3.7)	26 (4.2) 224 (4.5)	5 (1.6) *** (**.*)
Nation	45 (4.1) 228 (3.1)	21 (2.6) 224 (3.0)	26 (3.2) 225 (3.5)	7 (1.4) 214 (5.3)
Some after HS				
State	34 (5.7) 227 (4.1)	32 (4.8) 223 (4.0)	28 (5.2) *** (**.*)	5 (2.4) *** (**.*)
Nation	48 (4.7) 224 (3.4)	19 (3.5) 220 (5.3)!	22 (3.3) 225 (5.8)	10 (3.1) *** (**.*)
HS graduate				
State	32 (3.8) 217 (3.5)	30 (4.6) 206 (5.1)	30 (4.5) 222 (3.6)	8 (2.5) *** (**.*)
Nation	41 (5.1) 215 (4.3)	22 (3.4) 212 (4.4)	27 (4.5) 212 (3.8)	10 (2.8) *** (**.*)
HS non-graduate				
State	26 (4.4) *** (**.*)	26 (6.1) *** (**.*)	42 (6.5) *** (**.*)	6 (2.7) *** (**.*)
Nation	38 (4.6) 199 (6.3)	27 (4.1) *** (**.*)	26 (4.6) *** (**.*)	9 (2.6) *** (**.*)
I don't know				
State	32 (3.6) 213 (2.8)	30 (4.2) 207 (4.8)	31 (4.2) 214 (2.5)	7 (1.8) *** (**.*)
Nation	41 (3.7) 215 (2.6)	23 (2.8) 208 (3.2)	27 (3.3) 211 (2.7)	9 (1.5) 205 (3.5)
GENDER				
Male				
State	35 (3.3) 220 (2.8)	30 (3.8) 207 (4.2)	27 (3.7) 219 (3.0)	7 (1.9) 212 (5.4)!
Nation	45 (3.9) 217 (2.6)	21 (2.5) 207 (3.4)	26 (3.1) 215 (2.5)	8 (1.5) 205 (4.1)
Female				
State	36 (3.7) 223 (2.5)	29 (3.6) 217 (3.2)	30 (4.0) 221 (2.4)	5 (1.5) *** (**.*)
Nation	41 (3.5) 224 (2.4)	23 (2.5) 221 (2.4)	26 (3.0) 219 (2.7)	9 (1.8) 215 (4.1)

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within ± 2 standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). ! Interpret with caution -- the nature of the sample does not allow accurate determination of the variability of this statistic. *** Sample size is insufficient to permit a reliable estimate (fewer than 62 students).

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TABLE A15E | **Teachers' Reports on Frequency of Use of Materials from Other Subject Areas**

	Almost Every Day	Once or Twice a Week	Once or Twice a Month	Never or Hardly Ever
	Percentage and Proficiency	Percentage and Proficiency	Percentage and Proficiency	Percentage and Proficiency
TOTAL				
State	27 (2.7) 217 (2.6)	34 (2.9) 217 (3.0)	26 (2.6) 219 (2.5)	12 (2.2) 216 (4.0)
Nation	26 (2.6) 217 (2.9)	30 (3.0) 221 (2.3)	30 (2.5) 214 (2.1)	14 (2.3) 218 (3.3)
RACE/ ETHNICITY				
White				
State	26 (2.9) 224 (2.6)	34 (3.3) 226 (2.2)	27 (3.0) 226 (2.4)	12 (2.3) 221 (2.7)!
Nation	25 (3.3) 226 (2.9)	30 (3.7) 228 (2.4)	30 (3.0) 220 (2.3)	15 (2.8) 223 (3.6)
Black				
State	30 (8.0) 193 (3.5)!	40 (7.5) 184 (7.4)!	20 (5.9) 185 (4.5)!	11 (4.7) *** (** *)
Nation	28 (3.6) 192 (3.7)	30 (4.1) 196 (3.1)	31 (4.4) 194 (3.0)	10 (2.7) 202 (5.1)!
Hispanic				
State	24 (4.9) *** (** *)	36 (4.7) 193 (5.1)	25 (4.3) *** (** *)	15 (4.1) *** (** *)
Nation	32 (3.2) 199 (3.8)	26 (3.0) 205 (4.7)	27 (3.4) 203 (3.8)	15 (2.5) 204 (4.6)
TYPE OF COMMUNITY				
Adv. urban				
State	33 (9.7)! *** (** *)	39 (9.6)! 240 (6.4)!	24 (10.4)! *** (** *)	4 (3.9)! *** (** *)
Nation	49 (14.5)! 250 (8.5)!	24 (9.4)! *** (** *)	13 (7.0)! *** (** *)	14 (8.8)! *** (** *)
Disadv. urban				
State	35 (10.5)! 188 (3.8)!	28 (8.1)! 190 (8.0)!	23 (8.1)! 191 (8.8)!	15 (8.3)! *** (** *)
Nation	37 (7.4) 190 (6.3)!	22 (4.4) 189 (5.2)!	36 (7.6) 192 (3.5)!	5 (2.5) *** (** *)
Extreme rural				
State	25 (12.1)! *** (** *)	25 (9.3)! *** (** *)	45 (15.9)! 218 (2.6)!	5 (4.3)! *** (** *)
Nation	32 (10.9) 220 (5.0)!	31 (11.0) 222 (5.8)!	19 (6.2) 213 (12.2)!	19 (5.2) 222 (6.2)!
Other				
State	27 (3.9) 218 (2.6)	34 (4.7) 220 (3.1)	24 (3.7) 224 (2.6)	15 (3.4) 218 (3.7)!
Nation	22 (2.7) 216 (3.1)	31 (2.9) 222 (2.4)	32 (3.0) 216 (2.1)	15 (2.8) 217 (3.5)

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TABLE A15E (continued)

Teachers' Reports on Frequency of Use of Materials from Other Subject Areas

	Almost Every Day	Once or Twice a Week	Once or Twice a Month	Never or Hardly Ever
	Percentage and Proficiency	Percentage and Proficiency	Percentage and Proficiency	Percentage and Proficiency
TOTAL				
State	27 (2.7)	34 (2.9)	26 (2.6)	12 (2.2)
	217 (2.6)	217 (3.0)	219 (2.5)	216 (4.0)
Nation	26 (2.8)	30 (3.0)	30 (2.5)	14 (2.3)
	217 (2.9)	221 (2.3)	214 (2.1)	218 (3.3)
PARENTS' EDUCATION				
College graduate				
State	27 (3.0)	34 (3.4)	27 (3.2)	11 (2.3)
	224 (4.4)	225 (3.9)	224 (3.2)	222 (5.8)!
Nation	27 (3.3)	32 (3.6)	27 (2.7)	14 (2.4)
	227 (4.5)	228 (2.5)	221 (3.0)	226 (5.4)
Some after HS				
State	28 (4.2)	34 (4.9)	28 (4.8)	11 (2.8)
	*** (***.*)	222 (3.1)	*** (***.*)	*** (***.*)
Nation	24 (2.8)	30 (4.7)	35 (4.4)	10 (2.4)
	224 (5.5)	226 (4.9)	220 (4.4)	*** (***.*)
HS graduate				
State	25 (3.8)	31 (4.0)	28 (3.5)	16 (3.2)
	212 (4.5)	209 (5.6)	219 (4.2)	*** (***.*)
Nation	27 (3.7)	29 (3.4)	26 (3.0)	18 (2.7)
	210 (3.9)	217 (3.4)	210 (3.7)	216 (4.4)
HS non-graduate				
State	28 (5.3)	31 (5.7)	28 (6.2)	12 (3.8)
	*** (***.*)	*** (***.*)	*** (***.*)	*** (***.*)
Nation	24 (4.6)	31 (4.6)	30 (4.6)	14 (3.6)
	*** (***.*)	*** (***.*)	*** (***.*)	*** (***.*)
I don't know				
State	26 (3.3)	37 (3.6)	24 (2.6)	13 (2.7)
	211 (2.6)	211 (3.9)	211 (3.4)	209 (5.9)!
Nation	27 (3.2)	26 (2.8)	32 (2.6)	15 (2.8)
	210 (3.0)	215 (3.6)	209 (2.8)	212 (2.3)
GENDER				
Male				
State	27 (3.1)	33 (3.0)	26 (2.7)	13 (2.5)
	216 (3.7)	214 (3.9)	216 (3.0)	214 (5.3)
Nation	27 (2.9)	30 (3.2)	30 (2.5)	13 (2.4)
	212 (3.3)	218 (2.4)	210 (2.2)	213 (3.5)
Female				
State	26 (2.7)	36 (3.4)	26 (2.9)	12 (2.2)
	218 (2.4)	219 (2.8)	222 (2.9)	218 (4.0)
Nation	26 (2.9)	29 (2.9)	30 (2.7)	15 (2.5)
	221 (3.0)	224 (2.5)	218 (2.7)	222 (3.6)

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within ± 2 standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). ! Interpret with caution -- the nature of the sample does not allow accurate determination of the variability of this statistic. *** Sample size is insufficient to permit a reliable estimate (fewer than 62 students).

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TABLE A16 | Teachers' Reports on Emphasis on Aspects of Reading

	Decoding Skills			Oral Reading		
	Almost All of the Time	Some of the Time	Never or Hardly Ever	Almost All of the Time	Some of the Time	Never or Hardly Ever
	Percentage and Proficiency			Percentage and Proficiency		
TOTAL						
State	14 (2.2)	74 (3.2)	13 (2.4)	17 (2.6)	77 (2.7)	6 (1.6)
	209 (4.2)	219 (1.8)	218 (3.2)	215 (3.4)	217 (1.8)	229 (7.6)!
Nation	15 (1.7)	69 (2.5)	15 (2.1)	24 (2.2)	70 (2.3)	7 (1.4)
	207 (2.7)	218 (1.4)	221 (3.2)	211 (2.5)	219 (1.4)	226 (5.4)!
RACE/ ETHNICITY						
White						
State	12 (2.4)	74 (3.6)	14 (2.8)	17 (2.8)	77 (2.7)	6 (1.8)
	221 (3.6)!	226 (1.6)	222 (3.3)!	224 (2.9)	224 (1.4)	234 (6.5)!
Nation	12 (1.8)	71 (2.8)	17 (2.4)	20 (2.6)	73 (2.9)	7 (1.7)
	218 (3.3)	225 (1.7)	226 (3.4)	221 (3.0)	225 (1.5)	230 (5.4)!
Black						
State	24 (5.9)	70 (6.2)	7 (2.2)	21 (6.0)	75 (7.1)	4 (3.3)
	179 (3.8)!	189 (5.0)	*** (**.*)	183 (2.4)!	189 (4.7)	*** (**.*)
Nation	26 (3.1)	66 (3.8)	8 (2.0)	33 (3.2)	64 (3.3)	2 (1.2)
	190 (3.7)	196 (2.1)	*** (**.*)	192 (3.1)	196 (2.5)	*** (**.*)
Hispanic						
State	17 (3.9)	71 (4.4)	12 (3.7)	13 (3.2)	82 (4.0)	5 (2.5)
	*** (**.*)	196 (3.6)	*** (**.*)	*** (**.*)	196 (3.3)	*** (**.*)
Nation	28 (4.4)	63 (4.0)	9 (2.3)	37 (4.8)	57 (4.6)	6 (1.6)
	194 (3.8)	205 (2.5)	*** (**.*)	196 (3.2)	204 (2.8)	*** (**.*)
TYPE OF COMMUNITY						
Adv. urban						
State	7 (4.2)!	73 (9.2)!	20 (11.0)!	11 (7.8)!	79 (9.8)!	11 (7.3)!
	*** (**.*)	242 (5.3)!	*** (**.*)	*** (**.*)	237 (3.0)!	*** (**.*)
Nation	9 (4.5)!	76 (7.7)!	15 (8.8)!	11 (6.2)!	81 (9.1)!	8 (8.6)!
	*** (**.*)	241 (5.7)!	*** (**.*)	*** (**.*)	241 (6.4)!	*** (**.*)
Disadv. urban						
State	28 (8.1)!	67 (8.4)!	5 (3.9)!	30 (9.3)!	70 (9.3)!	0 (0.0)!
	184 (5.0)!	197 (6.8)!	*** (**.*)	187 (3.7)!	196 (6.5)!	*** (**.*)
Nation	23 (5.7)	70 (5.5)	7 (3.3)	33 (6.5)	62 (6.6)	4 (3.9)
	188 (4.7)!	192 (3.5)	*** (**.*)	190 (6.9)!	190 (3.1)!	*** (**.*)
Extreme rural						
State	23 (11.8)!	68 (11.3)!	9 (5.4)!	12 (10.4)!	88 (10.4)!	0 (0.0)!
	*** (**.*)	227 (3.0)!	*** (**.*)	*** (**.*)	224 (3.6)!	*** (**.*)
Nation	16 (4.5)	54 (8.9)	29 (7.5)	26 (4.9)	68 (5.4)	5 (2.7)
	200 (7.9)!	224 (3.5)	221 (5.3)!	211 (8.2)!	221 (4.1)	*** (**.*)
Other						
State	9 (2.5)	76 (4.0)	15 (3.5)	17 (3.6)	76 (3.8)	6 (2.4)
	218 (4.8)!	221 (1.5)	215 (3.1)!	222 (2.6)!	220 (1.8)	220 (8.8)!
Nation	15 (1.9)	72 (2.4)	14 (1.9)	23 (3.0)	70 (3.2)	7 (1.7)
	210 (3.1)	219 (1.6)	220 (4.1)	213 (2.9)	219 (1.7)	221 (5.6)!

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TABLE A16 (continued)

Teachers' Reports on Emphasis on Aspects of Reading

	Decoding Skills			Oral Reading		
	Almost All of the Time	Some of the Time	Never or Hardly Ever	Almost All of the Time	Some of the Time	Never or Hardly Ever
	Percentage and Proficiency			Percentage and Proficiency		
TOTAL						
State	14 (2.2)	74 (3.2)	13 (2.4)	17 (2.8)	77 (2.7)	6 (1.6)
	209 (4.2)	219 (1.8)	218 (3.2)	215 (3.4)	217 (1.8)	229 (7.6)!
Nation	15 (1.7)	69 (2.5)	15 (2.1)	24 (2.2)	70 (2.3)	7 (1.4)
	207 (2.7)	218 (1.4)	221 (3.2)	211 (2.5)	219 (1.4)	226 (5.4)!
PARENTS' EDUCATION						
College graduate						
State	12 (2.3)	76 (3.5)	12 (2.7)	16 (3.0)	77 (3.0)	7 (2.0)
	208 (6.6)!	227 (2.6)	224 (4.8)!	221 (5.5)!	223 (2.4)	*** (**.*)
Nation	14 (1.9)	68 (2.6)	18 (2.4)	21 (2.5)	71 (2.7)	7 (1.9)
	214 (3.8)	227 (2.0)	229 (5.0)	215 (3.3)	227 (2.0)	235 (7.0)!
Some after HS						
State	14 (3.4)	71 (4.8)	15 (3.4)	14 (3.8)	79 (4.1)	7 (2.4)
	*** (**.*)	225 (2.8)	*** (**.*)	*** (**.*)	225 (2.8)	*** (**.*)
Nation	14 (2.1)	74 (3.0)	12 (2.5)	21 (3.2)	74 (2.8)	5 (1.9)
	*** (**.*)	222 (3.0)	*** (**.*)	218 (5.4)	223 (3.2)	*** (**.*)
HS graduate						
State	18 (3.3)	68 (4.0)	15 (3.1)	18 (3.2)	76 (3.5)	5 (1.9)
	*** (**.*)	215 (3.1)	*** (**.*)	*** (**.*)	214 (3.0)	*** (**.*)
Nation	19 (2.8)	68 (4.0)	14 (2.9)	27 (3.4)	67 (3.5)	6 (2.0)
	206 (4.4)	215 (2.8)	*** (**.*)	211 (4.1)	214 (2.7)	*** (**.*)
HS non-graduate						
State	28 (5.8)	64 (5.9)	9 (2.8)	28 (6.1)	69 (6.0)	3 (1.8)
	*** (**.*)	*** (**.*)	*** (**.*)	*** (**.*)	*** (**.*)	*** (**.*)
Nation	11 (2.5)	77 (4.6)	11 (3.4)	21 (3.9)	75 (4.1)	4 (1.8)
	*** (**.*)	199 (4.4)	*** (**.*)	*** (**.*)	200 (4.0)	*** (**.*)
I don't know						
State	13 (2.6)	75 (3.4)	12 (2.6)	18 (3.0)	77 (3.1)	5 (1.7)
	206 (4.0)!	211 (2.2)	213 (4.1)!	211 (3.3)	210 (2.1)	*** (**.*)
Nation	16 (2.0)	69 (2.9)	15 (2.4)	26 (2.4)	68 (2.5)	7 (1.4)
	200 (2.9)	213 (1.9)	214 (3.6)	206 (2.6)	213 (1.7)	220 (6.9)!
GENDER						
Male						
State	13 (2.3)	74 (3.5)	13 (2.6)	17 (2.5)	77 (2.6)	6 (1.8)
	206 (4.8)	217 (2.2)	212 (5.3)!	213 (4.5)	215 (2.2)	223 (6.2)!
Nation	16 (1.8)	68 (2.3)	16 (2.1)	23 (2.2)	71 (2.2)	6 (1.5)
	203 (3.3)	215 (1.6)	217 (3.7)	208 (3.2)	215 (1.7)	219 (5.5)!
Female						
State	14 (2.5)	74 (3.2)	12 (2.3)	18 (2.9)	77 (3.1)	5 (1.5)
	211 (4.7)	221 (1.9)	223 (3.0)	218 (3.7)	219 (1.8)	*** (**.*)
Nation	15 (1.7)	70 (2.9)	15 (2.3)	24 (2.4)	69 (2.7)	7 (1.5)
	211 (2.8)	222 (1.8)	226 (3.7)	213 (2.5)	223 (1.6)	232 (6.2)!

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within ± 2 standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). ! Interpret with caution -- the nature of the sample does not allow accurate determination of the variability of this statistic. *** Sample size is insufficient to permit a reliable estimate (fewer than 62 students).

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TABLE A16 (continued) | **Teachers' Reports on Emphasis on Aspects of Reading**

	Vocabulary			Comprehension / Interpretation		
	Almost All of the Time	Some of the Time	Never or Hardly Ever	Almost All of the Time	Some of the Time	Never or Hardly Ever
	Percentage and Proficiency			Percentage and Proficiency		
TOTAL						
State	33 (3.4)	67 (3.5)	1 (0.7)	71 (3.1)	29 (3.1)	0 (0.0)
	213 (2.7)	220 (1.8)	*** (**.*)	219 (1.7)	214 (3.2)	*** (**.*)
Nation	39 (2.8)	59 (2.8)	2 (0.8)	70 (2.4)	30 (2.4)	0 (0.0)
	214 (1.7)	220 (1.8)	*** (**.*)	218 (1.7)	216 (1.9)	*** (**.*)
RACE/ ETHNICITY						
White						
State	31 (3.7)	68 (3.8)	1 (0.7)	73 (3.5)	27 (3.5)	0 (0.0)
	222 (2.5)	226 (1.5)	*** (**.*)	225 (1.6)	224 (2.0)	*** (**.*)
Nation	36 (3.3)	62 (3.3)	2 (1.0)	69 (2.7)	31 (2.7)	0 (0.0)
	223 (1.8)	226 (2.0)	*** (**.*)	226 (1.8)	221 (2.4)	*** (**.*)
Black						
State	40 (8.8)	60 (8.8)	0 (0.0)	66 (8.1)	34 (8.1)	0 (0.0)
	182 (3.6)!	192 (6.0)!	*** (**.*)	188 (3.0)	187 (9.5)!	*** (**.*)
Nation	49 (3.7)	51 (3.7)	0 (0.3)	75 (3.7)	25 (3.7)	0 (0.0)
	194 (2.7)	196 (2.5)	*** (**.*)	195 (2.1)	195 (3.7)	*** (**.*)
Hispanic						
State	37 (5.2)	61 (5.3)	2 (1.6)	62 (4.0)	38 (4.0)	0 (0.0)
	202 (4.8)	194 (3.4)	*** (**.*)	202 (3.4)	188 (4.1)	*** (**.*)
Nation	47 (5.6)	52 (5.4)	1 (0.5)	70 (3.8)	30 (3.8)	0 (0.0)
	197 (2.8)	207 (3.1)	*** (**.*)	200 (2.2)	207 (4.6)	*** (**.*)
TYPE OF COMMUNITY						
Adv. urban						
State	25 (10.2)!	75 (10.2)!	0 (0.0)!	78 (10.7)!	22 (10.7)!	0 (0.0)!
	*** (**.*)	241 (3.9)!	*** (**.*)	239 (5.4)!	*** (**.*)	*** (**.*)
Nation	28 (7.5)!	72 (7.5)!	0 (0.0)!	69 (11.7)!	31 (11.7)!	0 (0.0)!
	*** (**.*)	243 (7.5)!	*** (**.*)	249 (6.3)!	*** (**.*)	*** (**.*)
Disadv. urban						
State	53 (7.4)!	47 (7.4)!	0 (0.0)!	68 (6.4)!	32 (6.4)!	0 (0.0)!
	189 (5.0)!	198 (6.7)!	*** (**.*)	189 (3.9)!	201 (8.7)!	*** (**.*)
Nation	50 (6.7)	49 (6.8)	1 (0.9)	72 (4.6)	28 (4.6)	0 (0.0)
	192 (4.9)!	191 (3.9)!	*** (**.*)	193 (3.8)!	187 (5.6)!	*** (**.*)
Extreme rural						
State	36 (12.3)!	64 (12.3)!	0 (0.0)!	72 (7.9)!	28 (7.9)!	0 (0.0)!
	*** (**.*)	227 (2.7)!	*** (**.*)	228 (4.3)!	*** (**.*)	*** (**.*)
Nation	47 (10.0)	51 (9.9)	3 (2.6)	78 (6.1)	22 (6.1)	0 (0.0)
	218 (7.0)!	223 (3.5)!	*** (**.*)	218 (4.4)!	224 (3.6)!	*** (**.*)
Other						
State	30 (4.8)	69 (4.9)	1 (1.3)	73 (4.0)	27 (4.0)	0 (0.0)
	220 (3.5)	220 (1.5)	*** (**.*)	220 (1.8)	219 (2.1)	*** (**.*)
Nation	37 (3.3)	61 (3.2)	2 (1.0)	68 (2.6)	32 (2.6)	0 (0.0)
	215 (1.9)	220 (2.0)	*** (**.*)	219 (1.8)	217 (2.4)	*** (**.*)

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TABLE A16 (continued) | Teachers' Reports on Emphasis on Aspects of Reading

	Vocabulary			Comprehension / Interpretation		
	Almost All of the Time	Some of the Time	Never or Hardly Ever	Almost All of the Time	Some of the Time	Never or Hardly Ever
		Percentage and Proficiency			Percentage and Proficiency	
TOTAL						
State	33 (3.4)	67 (3.5)	1 (0.7)	71 (3.1)	29 (3.1)	0 (0.0)
	213 (2.7)	220 (1.8)	*** (**.*)	219 (1.7)	214 (3.2)	*** (**.*)
Nation	39 (2.8)	59 (2.6)	2 (0.8)	70 (2.4)	30 (2.4)	0 (0.0)
	214 (1.7)	220 (1.8)	*** (**.*)	218 (1.7)	216 (1.9)	*** (**.*)
PARENTS' EDUCATION						
College graduate						
State	33 (4.2)	66 (4.3)	1 (0.8)	73 (3.5)	27 (3.5)	0 (0.0)
	218 (4.4)	227 (2.3)	*** (**.*)	224 (2.7)	223 (4.0)	*** (**.*)
Nation	37 (3.1)	62 (3.2)	2 (0.8)	71 (2.6)	29 (2.6)	0 (0.0)
	221 (2.4)	226 (2.3)	*** (**.*)	226 (2.3)	223 (2.9)	*** (**.*)
Some after HS						
State	30 (4.4)	69 (4.5)	1 (0.9)	67 (4.3)	33 (4.3)	0 (0.0)
	221 (4.7)	227 (3.0)	*** (**.*)	227 (3.0)	221 (3.9)	*** (**.*)
Nation	37 (4.7)	61 (4.5)	1 (0.8)	69 (4.7)	31 (4.7)	0 (0.0)
	219 (3.9)	227 (3.5)	*** (**.*)	224 (3.9)	221 (3.4)	*** (**.*)
HS graduate						
State	34 (4.6)	66 (4.7)	1 (0.6)	69 (4.2)	31 (4.2)	0 (0.0)
	212 (3.4)	215 (3.1)	*** (**.*)	215 (2.6)	212 (5.2)	*** (**.*)
Nation	43 (3.3)	55 (3.3)	2 (1.4)	71 (3.4)	29 (3.4)	0 (0.0)
	211 (3.9)	215 (3.0)	*** (**.*)	213 (2.9)	214 (3.6)	*** (**.*)
HS non-graduate						
State	41 (5.9)	59 (5.9)	0 (0.0)	61 (5.9)	39 (5.9)	0 (0.0)
	*** (**.*)	*** (**.*)	*** (**.*)	*** (**.*)	*** (**.*)	*** (**.*)
Nation	42 (4.8)	57 (4.6)	2 (1.0)	67 (4.5)	33 (4.5)	0 (0.0)
	201 (5.4)	199 (4.6)	*** (**.*)	200 (4.7)	*** (**.*)	*** (**.*)
I don't know						
State	32 (3.6)	67 (3.6)	1 (0.6)	71 (3.6)	29 (3.6)	0 (0.0)
	208 (2.8)	212 (2.2)	*** (**.*)	213 (1.8)	205 (4.3)	*** (**.*)
Nation	41 (3.3)	58 (3.3)	2 (0.8)	69 (3.1)	31 (3.1)	0 (0.0)
	210 (2.4)	213 (2.2)	*** (**.*)	211 (1.9)	212 (2.2)	*** (**.*)
GENDER						
Male						
State	32 (3.8)	67 (3.9)	1 (1.0)	71 (3.2)	29 (3.2)	0 (0.0)
	210 (3.6)	217 (2.3)	*** (**.*)	217 (1.9)	210 (4.0)	*** (**.*)
Nation	39 (3.1)	60 (3.1)	2 (0.9)	70 (2.4)	30 (2.4)	0 (0.0)
	210 (2.4)	216 (2.0)	*** (**.*)	214 (2.1)	213 (1.9)	*** (**.*)
Female						
State	33 (3.5)	66 (3.5)	0 (0.4)	71 (3.2)	29 (3.2)	0 (0.0)
	215 (2.5)	222 (1.9)	*** (**.*)	220 (1.9)	218 (2.9)	*** (**.*)
Nation	40 (2.8)	59 (2.8)	1 (0.7)	70 (2.6)	30 (2.6)	0 (0.0)
	219 (1.8)	223 (2.0)	*** (**.*)	222 (1.7)	220 (2.5)	*** (**.*)

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within ± 2 standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). ! Interpret with caution -- the nature of the sample does not allow accurate determination of the variability of this statistic. *** Sample size is insufficient to permit a reliable estimate (fewer than 62 students).

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TABLE A16 (continued)

Teachers' Reports on Emphasis on Aspects of Reading

	Reading Strategies		
	Almost All of the Time	Some of the Time	Never or Hardly Ever
	Percentage and Proficiency		
TOTAL			
State	50 (3.3) 217 (2.3)	49 (3.4) 217 (2.5)	2 (1.2) *** (**.*)
Nation	40 (2.2) 218 (2.2)	58 (2.3) 217 (1.8)	2 (0.6) 218 (9.7)!
RACE/ ETHNICITY			
White			
State	48 (3.7) 225 (1.9)	49 (3.8) 225 (1.9)	2 (1.6) *** (**.*)
Nation	39 (2.4) 226 (2.3)	59 (2.5) 223 (2.0)	2 (0.7) *** (**.*)
Black			
State	57 (8.1) 190 (3.7)!	42 (8.1) 184 (7.2)!	0 (0.5) *** (**.*)
Nation	45 (3.6) 194 (3.5)	54 (3.6) 195 (2.6)	1 (0.5) *** (**.*)
Hispanic			
State	46 (4.3) 203 (3.6)	54 (4.4) 192 (4.1)	0 (0.5) *** (**.*)
Nation	45 (4.3) 202 (2.7)	52 (4.1) 203 (3.2)	3 (1.2) *** (**.*)
TYPE OF COMMUNITY			
Adv. urban			
State	62 (14.4)! 238 (7.1)!	38 (14.4)! 243 (4.0)!	0 (0.0)! *** (**.*)
Nation	45 (11.6)! 251 (8.7)!	55 (11.6)! 236 (6.2)!	0 (0.0)! *** (**.*)
Disadv. urban			
State	46 (11.0)! 188 (2.9)!	54 (11.0)! 197 (9.7)!	0 (0.0)! *** (**.*)
Nation	38 (6.1) 193 (4.6)!	60 (6.1) 191 (3.7)!	3 (0.8) *** (**.*)
Extreme rural			
State	48 (10.0)! 230 (6.1)!	50 (9.5)! 222 (4.4)!	1 (1.5)! *** (**.*)
Nation	46 (8.5) 220 (5.0)!	51 (8.1) 218 (4.6)!	3 (2.0) *** (**.*)
Other			
State	51 (4.4) 218 (2.0)	48 (4.6) 222 (1.8)	1 (0.6) *** (**.*)
Nation	39 (2.7) 218 (2.4)	59 (2.6) 218 (1.9)	2 (0.7) *** (**.*)

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TABLE A16 (continued)

Teachers' Reports on Emphasis on Aspects of Reading

	Reading Strategies		
	Almost All of the Time	Some of the Time	Never or Hardly Ever
	Percentage and Proficiency		
TOTAL			
State	50 (3.3) 217 (2.3)	49 (3.4) 217 (2.5)	2 (1.2) *** (**.*)
Nation	40 (2.2) 218 (2.2)	58 (2.3) 217 (1.8)	2 (0.6) 218 (9.7)!
PARENTS' EDUCATION			
College graduate			
State	54 (3.9) 223 (3.7)	45 (4.1) 225 (3.4)	2 (1.5) *** (**.*)
Nation	43 (2.9) 226 (2.9)	55 (3.0) 225 (2.3)	1 (0.5) *** (**.*)
Some after HS			
State	45 (4.5) 225 (4.1)	54 (4.4) 225 (3.3)	1 (0.7) *** (**.*)
Nation	37 (3.8) 224 (5.5)	60 (4.1) 223 (2.5)	3 (1.6) *** (**.*)
HS graduate			
State	49 (3.8) 214 (2.9)	49 (4.0) 215 (4.2)	1 (0.8) *** (**.*)
Nation	44 (3.3) 212 (3.6)	54 (3.3) 215 (3.2)	2 (1.0) *** (**.*)
HS non-graduate			
State	38 (6.7) *** (**.*)	59 (6.7) *** (**.*)	3 (2.1) *** (**.*)
Nation	39 (3.8) 200 (6.6)	58 (3.9) 200 (5.6)	3 (1.3) *** (**.*)
I don't know			
State	48 (3.6) 213 (2.2)	50 (3.8) 208 (3.1)	2 (1.4) *** (**.*)
Nation	37 (2.7) 212 (2.4)	61 (2.8) 211 (2.0)	2 (0.7) *** (**.*)
GENDER			
Male			
State	49 (3.4) 216 (2.6)	49 (3.5) 214 (3.3)	2 (1.0) *** (**.*)
Nation	40 (2.4) 214 (2.6)	58 (2.6) 213 (1.9)	2 (0.7) *** (**.*)
Female			
State	50 (3.6) 219 (2.6)	48 (3.7) 220 (2.3)	2 (1.6) *** (**.*)
Nation	40 (2.4) 222 (2.2)	58 (2.4) 220 (2.0)	2 (0.6) *** (**.*)

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within ± 2 standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). ! Interpret with caution -- the nature of the sample does not allow accurate determination of the variability of this statistic. *** Sample size is insufficient to permit a reliable estimate (fewer than 62 students).

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TABLE A17A | **Teachers' and Students' Reports on Asking Students to Work in a Reading Workbook or on a Worksheet**

	Almost Every Day		At Least Once a Week		Less Than Weekly	
	Teacher	Student	Teacher	Student	Teacher	Student
	Percentage and Proficiency		Percentage and Proficiency		Percentage and Proficiency	
TOTAL						
State	19 (2.7)	50 (1.9)	60 (3.7)	28 (1.2)	21 (3.5)	22 (1.4)
	211 (2.9)	220 (1.7)	217 (2.1)	217 (1.8)	223 (2.3)	214 (2.1)
Nation	31 (2.7)	50 (1.6)	48 (3.4)	29 (1.0)	22 (2.8)	21 (1.1)
	214 (1.9)	218 (1.1)	217 (1.8)	219 (1.8)	222 (3.4)	212 (1.8)
RACE/ ETHNICITY						
White						
State	18 (2.9)	50 (2.2)	58 (4.1)	28 (1.5)	24 (4.1)	22 (1.7)
	220 (3.0)	227 (1.8)	226 (1.7)	224 (1.9)	226 (2.5)	220 (2.5)
Nation	28 (3.0)	48 (1.9)	49 (3.9)	30 (1.2)	23 (3.3)	22 (1.3)
	221 (2.1)	226 (1.5)	224 (2.0)	226 (1.9)	228 (3.4)	220 (2.2)
Black						
State	22 (5.3)	56 (2.5)	68 (6.9)	26 (2.3)	10 (4.0)	18 (1.6)
	185 (3.6)	192 (3.2)	187 (4.4)!	192 (4.1)	*** (**.*)	*** (**.*)
Nation	39 (4.1)	58 (2.3)	44 (4.0)	24 (1.8)	17 (4.1)	18 (1.6)
	197 (2.8)	197 (2.4)	193 (2.4)	194 (2.9)	195 (4.8)!	184 (2.9)
Hispanic						
State	26 (4.6)	47 (3.5)	56 (5.0)	31 (3.7)	18 (4.5)	22 (2.9)
	*** (**.*)	203 (4.2)	196 (3.7)	195 (5.2)	*** (**.*)	*** (**.*)
Nation	40 (4.0)	51 (2.2)	46 (3.9)	29 (1.8)	14 (3.5)	20 (1.5)
	200 (3.1)	203 (1.9)	203 (3.4)	202 (3.2)	206 (6.0)!	193 (5.0)
TYPE OF COMMUNITY						
Adv. urban						
State	7 (5.5)!	38 (5.4)!	51 (18.6)!	36 (4.1)!	43 (19.3)!	26 (2.7)!
	*** (**.*)	242 (4.6)!	241 (6.0)!	240 (6.4)!	238 (5.6)!	*** (**.*)
Nation	29 (12.4)!	44 (6.3)!	51 (13.8)!	39 (4.8)!	20 (14.8)!	16 (3.3)!
	*** (**.*)	238 (6.2)!	248 (6.1)!	242 (4.8)!	*** (**.*)	*** (**.*)
Disadv. urban						
State	49 (9.6)!	56 (2.8)!	49 (9.5)!	27 (3.0)!	2 (1.2)!	17 (2.1)!
	192 (6.3)!	197 (4.3)!	193 (5.7)!	191 (5.9)!	*** (**.*)	*** (**.*)
Nation	49 (7.7)	56 (2.7)	36 (6.4)	26 (1.8)	16 (6.2)	18 (1.7)
	196 (3.4)!	192 (2.7)	184 (6.6)!	187 (3.5)	196 (10.0)!	181 (4.5)
Extreme rural						
State	27 (11.9)!	54 (6.1)!	58 (13.1)!	28 (4.3)!	14 (11.5)!	18 (2.6)!
	*** (**.*)	230 (3.3)!	227 (3.2)!	*** (**.*)	*** (**.*)	*** (**.*)
Nation	36 (7.0)	59 (3.6)	48 (8.9)	22 (1.9)	17 (8.7)	19 (2.4)
	213 (7.0)!	224 (3.6)!	219 (4.3)!	216 (3.5)	*** (**.*)	211 (6.5)!
Other						
State	14 (2.7)	47 (2.3)	60 (4.8)	29 (1.5)	26 (5.3)	24 (2.0)
	221 (3.3)!	224 (2.1)	220 (2.0)	219 (2.0)	219 (2.4)!	217 (2.4)
Nation	28 (3.8)	48 (1.9)	49 (3.5)	29 (1.1)	23 (3.5)	23 (1.3)
	217 (2.1)	219 (1.5)	218 (2.2)	220 (1.8)	220 (3.5)	213 (2.0)

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TABLE A17A (continued)

Teachers' and Students' Reports on Asking Students to Work in a Reading Workbook or on a Worksheet

	Almost Every Day		At Least Once a Week		Less Than Weekly	
	Teacher	Student	Teacher	Student	Teacher	Student
	Percentage and Proficiency		Percentage and Proficiency		Percentage and Proficiency	
TOTAL						
State	19 (2.7)	50 (1.9)	60 (3.7)	28 (1.2)	21 (3.5)	22 (1.4)
	211 (2.9)	220 (1.7)	217 (2.1)	217 (1.8)	223 (2.3)	214 (2.1)
Nation	31 (2.7)	50 (1.6)	48 (3.4)	29 (1.0)	22 (2.8)	21 (1.1)
	214 (1.9)	218 (1.1)	217 (1.8)	219 (1.8)	222 (3.4)	212 (1.8)
PARENTS' EDUCATION						
College graduate						
State	17 (2.9)	48 (2.5)	57 (4.8)	29 (1.6)	26 (4.9)	23 (1.8)
	211 (4.5)	226 (2.6)	225 (3.3)	225 (3.1)	229 (3.7)!	216 (3.2)
Nation	30 (3.2)	49 (2.2)	46 (3.5)	30 (1.7)	24 (3.1)	21 (1.6)
	222 (2.5)	225 (1.8)	226 (2.4)	229 (2.5)	229 (5.0)	220 (2.8)
Some after HS						
State	20 (3.5)	54 (3.6)	59 (4.6)	31 (3.1)	21 (4.8)	16 (2.5)
	*** (***)	230 (3.1)	224 (2.9)	222 (4.0)	*** (***)	*** (***)
Nation	22 (3.4)	51 (4.0)	56 (5.8)	29 (3.0)	22 (4.6)	20 (2.6)
	218 (4.8)	223 (2.6)	225 (3.7)	227 (4.1)	223 (4.4)!	220 (6.7)
HS graduate						
State	24 (3.5)	52 (3.1)	62 (4.1)	30 (2.9)	14 (2.8)	18 (2.2)
	214 (4.1)	216 (3.0)	215 (3.1)	215 (3.0)	*** (***)	*** (***)
Nation	33 (3.9)	53 (2.4)	47 (4.4)	26 (2.0)	19 (4.0)	21 (2.0)
	214 (3.4)	215 (2.7)	210 (2.9)	212 (2.9)	220 (4.7)!	207 (3.0)
HS non-graduate						
State	29 (6.5)	58 (5.6)	59 (5.9)	19 (3.6)	12 (4.0)	23 (4.6)
	*** (***)	210 (3.9)	*** (***)	*** (***)	*** (***)	*** (***)
Nation	27 (4.6)	56 (3.2)	58 (5.1)	24 (3.1)	15 (3.4)	19 (2.3)
	*** (***)	202 (3.1)	197 (4.2)	195 (5.8)	*** (***)	*** (***)
I don't know						
State	20 (3.2)	50 (2.2)	61 (4.2)	28 (1.9)	19 (3.5)	22 (1.9)
	207 (4.0)	214 (2.0)	210 (2.5)	209 (2.5)	216 (2.3)	210 (2.7)
Nation	33 (3.0)	49 (1.9)	46 (3.5)	29 (1.3)	21 (2.7)	22 (1.2)
	206 (2.3)	213 (1.7)	212 (2.3)	211 (2.1)	218 (3.5)	206 (2.5)
GENDER						
Male						
State	20 (3.1)	49 (2.1)	61 (3.9)	28 (1.6)	19 (3.4)	23 (1.6)
	209 (3.9)	219 (2.2)	215 (2.6)	214 (2.4)	220 (3.4)	211 (2.5)
Nation	30 (3.0)	48 (1.7)	47 (3.8)	29 (1.1)	23 (3.0)	23 (1.3)
	212 (2.4)	214 (1.5)	212 (1.9)	215 (2.3)	219 (3.6)	209 (2.2)
Female						
State	19 (2.7)	52 (2.2)	58 (3.9)	28 (1.5)	23 (3.8)	20 (1.6)
	213 (3.1)	221 (1.8)	219 (2.4)	221 (2.0)	226 (2.5)	217 (2.6)
Nation	32 (2.7)	52 (1.9)	48 (3.2)	28 (1.3)	20 (2.7)	20 (1.2)
	216 (2.0)	221 (1.2)	223 (2.2)	223 (1.9)	226 (3.7)	215 (2.4)

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within ± 2 standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). ! Interpret with caution -- the nature of the sample does not allow accurate determination of the variability of this statistic. *** Sample size is insufficient to permit a reliable estimate (fewer than 62 students).

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TABLE A17B | **Teachers' and Students' Reports on Asking Students to Write About Something They Have Read**

	Almost Every Day		At Least Once a Week		Less Than Weekly	
	Teacher	Student	Teacher	Student	Teacher	Student
	Percentage and Proficiency		Percentage and Proficiency		Percentage and Proficiency	
TOTAL						
State	24 (3.0)	21 (1.2)	50 (3.7)	33 (1.1)	26 (3.4)	46 (1.5)
	218 (3.2)	210 (1.9)	219 (1.8)	217 (1.9)	214 (4.0)	222 (1.7)
Nation	25 (1.8)	23 (0.8)	49 (2.6)	34 (1.0)	26 (2.5)	43 (1.2)
	221 (2.8)	211 (1.6)	217 (1.9)	218 (1.3)	214 (2.5)	219 (1.2)
RACE/ ETHNICITY						
White						
State	25 (3.5)	18 (1.2)	51 (4.1)	34 (1.2)	24 (3.6)	49 (1.6)
	225 (3.2)	220 (2.0)	225 (1.6)	224 (2.0)	224 (2.2)	227 (1.8)
Nation	24 (2.4)	20 (1.1)	49 (3.1)	34 (1.3)	27 (3.0)	46 (1.6)
	229 (2.7)	220 (2.0)	224 (2.2)	226 (1.7)	220 (2.9)	226 (1.6)
Black						
State	20 (4.7)	34 (3.2)	50 (8.9)	32 (2.6)	30 (9.2)	34 (2.2)
	*** (** *)	188 (3.1)	191 (3.1)	190 (3.4)	182 (8.8)!	194 (3.5)
Nation	25 (4.0)	32 (1.7)	49 (4.4)	34 (1.5)	26 (4.1)	34 (1.6)
	193 (3.3)	194 (2.7)	195 (2.9)	195 (2.4)	197 (3.2)	192 (2.1)
Hispanic						
State	20 (3.6)	26 (3.2)	48 (4.8)	35 (3.8)	32 (5.1)	39 (3.0)
	*** (** *)	*** (** *)	201 (3.7)	202 (4.3)	*** (** *)	200 (3.9)
Nation	24 (3.3)	27 (1.7)	53 (3.6)	35 (1.9)	23 (2.8)	37 (2.1)
	204 (3.7)	200 (3.5)	203 (3.1)	203 (3.2)	199 (4.1)	202 (3.4)
TYPE OF COMMUNITY						
Adv. urban						
State	58 (14.9)!	14 (2.9)!	34 (15.8)!	34 (4.1)!	8 (8.8)!	52 (4.7)!
	241 (6.9)!	*** (** *)	236 (4.3)!	239 (4.7)!	*** (** *)	243 (5.3)!
Nation	45 (13.0)!	17 (4.2)!	41 (9.7)!	43 (3.5)!	14 (8.4)!	40 (6.1)!
	246 (10.4)!	*** (** *)	*** (** *)	236 (5.6)!	*** (** *)	240 (4.8)!
Disadv. urban						
State	24 (7.0)!	31 (3.4)!	60 (8.9)!	34 (2.6)!	16 (7.9)!	35 (3.4)!
	181 (5.7)!	188 (4.8)!	195 (4.9)!	193 (4.2)!	*** (** *)	198 (6.2)!
Nation	21 (6.0)	32 (2.1)	55 (5.9)	32 (1.8)	24 (5.9)	36 (2.6)
	190 (7.3)!	192 (3.9)	190 (4.5)	189 (3.3)	196 (6.5)!	187 (3.1)
Extreme rural						
State	9 (5.4)!	20 (3.3)!	56 (17.8)!	32 (4.9)!	36 (19.2)!	48 (5.9)!
	*** (** *)	*** (** *)	232 (3.3)!	*** (** *)	*** (** *)	225 (3.9)!
Nation	16 (7.1)	22 (2.4)	53 (8.3)	31 (1.5)	31 (8.6)	47 (3.4)
	220 (11.2)!	214 (3.7)	222 (5.3)	223 (3.9)	214 (5.3)!	219 (3.1)!
Other						
State	21 (3.9)	20 (1.6)	53 (4.4)	32 (1.4)	26 (3.9)	46 (2.0)
	218 (2.8)	215 (2.3)	221 (2.0)	220 (2.2)	220 (2.6)	224 (1.9)
Nation	25 (2.5)	22 (1.0)	48 (2.9)	34 (1.2)	26 (3.1)	43 (1.2)
	221 (2.4)	212 (1.7)	218 (2.2)	219 (1.5)	215 (2.2)	220 (1.7)

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TABLE A17B (continued)

Teachers' and Students' Reports on Asking Students to Write About Something They Have Read

	Almost Every Day		At Least Once a Week		Less Than Weekly	
	Teacher	Student	Teacher	Student	Teacher	Student
	Percentage and Proficiency		Percentage and Proficiency		Percentage and Proficiency	
TOTAL						
State	24 (3.0)	21 (1.2)	50 (3.7)	33 (1.1)	26 (3.4)	46 (1.5)
	218 (3.2)	210 (1.9)	219 (1.8)	217 (1.9)	214 (4.0)	222 (1.7)
Nation	25 (1.8)	23 (0.8)	49 (2.6)	34 (1.0)	26 (2.5)	43 (1.2)
	221 (2.8)	211 (1.6)	217 (1.9)	218 (1.3)	214 (2.5)	219 (1.2)
PARENTS' EDUCATION						
College graduate						
State	28 (3.8)	23 (1.7)	49 (4.4)	34 (1.8)	23 (3.1)	43 (2.1)
	226 (5.0)	214 (2.9)	225 (2.6)	225 (2.8)	219 (4.3)	229 (2.7)
Nation	27 (2.3)	24 (1.2)	49 (3.1)	36 (1.6)	24 (2.8)	40 (1.7)
	231 (3.9)	219 (2.5)	223 (2.4)	228 (2.2)	223 (3.8)	226 (1.9)
Some after HS						
State	22 (4.0)	24 (3.0)	50 (5.2)	37 (3.0)	28 (4.9)	39 (3.6)
	*** (**.*)	*** (**.*)	228 (3.1)	226 (3.8)	*** (**.*)	232 (3.5)
Nation	24 (3.4)	19 (1.8)	45 (4.3)	37 (2.9)	31 (4.2)	44 (2.9)
	227 (5.4)	218 (5.2)	226 (4.8)	222 (3.6)	216 (2.8)	227 (3.6)
HS graduate						
State	23 (3.8)	20 (2.5)	47 (5.0)	33 (2.5)	30 (4.4)	47 (2.7)
	*** (**.*)	206 (2.7)	217 (2.7)	212 (3.4)	213 (5.7)	219 (2.7)
Nation	24 (3.2)	25 (2.3)	48 (3.7)	31 (2.3)	28 (4.2)	44 (2.3)
	212 (4.8)	211 (3.4)	215 (2.6)	213 (3.3)	211 (4.8)	213 (2.6)
HS non-graduate						
State	25 (5.0)	21 (4.1)	48 (6.8)	29 (3.3)	28 (7.0)	50 (4.4)
	*** (**.*)	*** (**.*)	*** (**.*)	*** (**.*)	*** (**.*)	*** (**.*)
Nation	25 (4.1)	26 (3.3)	45 (4.3)	29 (3.1)	30 (4.1)	45 (3.6)
	*** (**.*)	194 (5.1)	202 (5.2)	196 (5.1)	*** (**.*)	206 (4.6)
I don't know						
State	22 (2.9)	19 (1.5)	54 (3.8)	33 (1.9)	24 (4.0)	49 (2.3)
	213 (3.1)	204 (3.2)	212 (2.1)	209 (2.2)	205 (5.8)	217 (2.3)
Nation	23 (2.0)	22 (1.1)	52 (2.9)	34 (1.4)	26 (2.9)	44 (1.7)
	215 (3.1)	204 (2.4)	211 (2.3)	211 (1.4)	208 (2.5)	214 (1.7)
GENDER						
Male						
State	24 (3.2)	19 (1.5)	50 (4.0)	33 (1.5)	26 (3.8)	48 (1.8)
	217 (3.3)	210 (2.5)	215 (2.2)	215 (2.4)	212 (5.1)	219 (2.1)
Nation	25 (2.3)	22 (1.2)	50 (2.6)	33 (1.4)	25 (2.5)	44 (1.8)
	218 (3.4)	207 (2.4)	213 (2.3)	215 (1.9)	210 (2.7)	214 (1.4)
Female						
State	25 (3.0)	23 (1.4)	50 (3.8)	34 (1.5)	25 (3.3)	43 (1.8)
	219 (3.7)	210 (2.3)	222 (2.1)	220 (2.1)	217 (3.2)	226 (1.9)
Nation	24 (1.7)	24 (0.9)	49 (2.8)	35 (1.1)	27 (2.7)	41 (1.2)
	225 (2.9)	215 (1.9)	221 (2.0)	221 (1.3)	219 (2.7)	224 (1.8)

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within ± 2 standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). ! Interpret with caution -- the nature of the sample does not allow accurate determination of the variability of this statistic. *** Sample size is insufficient to permit a reliable estimate (fewer than 62 students).

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TABLE A17C | **Teachers' and Students' Reports on Asking Students to Write in a Log or Journal About What They Have Read**

	Almost Every Day		At Least Once a Week		Less Than Weekly	
	Teacher	Student	Teacher	Student	Teacher	Student
	Percentage and Proficiency		Percentage and Proficiency		Percentage and Proficiency	
TOTAL						
State	16 (2.6)	18 (1.5)	29 (3.2)	21 (1.2)	55 (3.7)	61 (2.1)
	215 (4.3)	212 (2.8)	219 (2.5)	213 (2.2)	217 (2.1)	222 (1.6)
Nation	21 (2.3)	21 (1.5)	31 (2.3)	22 (1.0)	48 (2.8)	57 (1.6)
	219 (3.1)	213 (2.1)	219 (2.0)	214 (2.1)	216 (1.9)	220 (1.2)
RACE/ ETHNICITY						
White						
State	16 (2.6)	16 (1.7)	29 (3.4)	21 (1.4)	55 (4.1)	63 (2.4)
	223 (3.8)	221 (2.8)	226 (2.1)	221 (2.1)	225 (1.8)	227 (1.6)
Nation	20 (2.7)	18 (1.7)	32 (2.6)	22 (1.3)	48 (3.2)	60 (2.0)
	227 (3.3)	223 (2.4)	226 (2.0)	223 (2.1)	222 (2.4)	226 (1.5)
Black						
State	18 (7.2)	24 (2.1)	25 (8.4)	28 (1.7)	57 (6.6)	48 (2.5)
	*** (**.*)	190 (3.9)	190 (3.6)!	188 (5.1)	188 (5.5)	193 (3.2)
Nation	23 (4.4)	27 (2.3)	29 (3.9)	22 (1.3)	48 (5.0)	50 (2.3)
	193 (3.0)	192 (3.4)	195 (3.1)	189 (3.1)	196 (2.9)	197 (2.0)
Hispanic						
State	15 (4.2)	25 (3.7)	31 (5.0)	15 (2.5)	55 (6.8)	60 (4.2)
	*** (**.*)	*** (**.*)	*** (**.*)	*** (**.*)	198 (4.3)	205 (2.8)
Nation	24 (2.6)	28 (2.1)	29 (3.8)	26 (1.6)	47 (3.4)	46 (2.1)
	204 (3.7)	197 (3.4)	199 (3.5)	199 (3.5)	204 (3.5)	207 (3.1)
TYPE OF COMMUNITY						
Adv. urban						
State	19 (12.3)!	18 (6.5)!	23 (8.7)!	23 (2.9)!	58 (13.5)!	58 (8.5)!
	*** (**.*)	*** (**.*)	*** (**.*)	*** (**.*)	240 (3.4)!	239 (4.3)!
Nation	36 (13.2)!	20 (6.4)!	35 (10.6)!	28 (3.2)!	30 (14.7)!	53 (6.2)!
	*** (**.*)	*** (**.*)	*** (**.*)	236 (5.2)!	*** (**.*)	240 (4.4)!
Disadv. urban						
State	19 (7.3)!	22 (2.9)!	25 (8.6)!	26 (3.3)!	56 (10.9)!	52 (5.9)!
	*** (**.*)	187 (6.4)!	190 (5.9)!	183 (4.0)!	197 (7.7)!	201 (5.0)!
Nation	25 (7.3)	27 (2.9)	32 (6.8)	24 (2.1)	44 (7.4)	49 (3.1)
	195 (5.1)!	188 (3.4)	187 (4.2)!	181 (3.6)	193 (4.5)!	194 (3.0)
Extreme rural						
State	0 (0.0)!	5 (1.1)!	54 (11.5)!	18 (4.3)!	46 (11.5)!	77 (4.8)!
	*** (**.*)	*** (**.*)	229 (5.4)!	*** (**.*)	222 (2.1)!	227 (2.7)!
Nation	13 (4.1)	15 (3.3)	32 (6.6)	21 (4.1)	55 (7.5)	64 (5.6)
	219 (11.3)!	210 (8.5)!	223 (4.3)!	220 (4.3)!	218 (5.4)!	223 (2.9)!
Other						
State	18 (3.7)	20 (2.1)	27 (4.6)	20 (1.2)	55 (5.3)	61 (2.8)
	216 (3.8)!	215 (3.3)	220 (2.8)	217 (2.2)	222 (2.0)	224 (1.8)
Nation	21 (3.2)	21 (1.8)	31 (2.8)	22 (1.0)	48 (3.8)	57 (1.9)
	219 (2.6)	215 (2.2)	220 (2.4)	215 (2.4)	217 (2.0)	221 (1.5)

(continued on next page)

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TABLE A17C (continued)

Teachers' and Students' Reports on Asking Students to Write in a Log or Journal About What They Have Read

	Almost Every Day		At Least Once a Week		Less Than Weekly	
	Teacher	Student	Teacher	Student	Teacher	Student
	Percentage and Proficiency		Percentage and Proficiency		Percentage and Proficiency	
TOTAL						
State	16 (2.6)	18 (1.5)	29 (3.2)	21 (1.2)	55 (3.7)	61 (2.1)
	215 (4.3)	212 (2.8)	219 (2.5)	213 (2.2)	217 (2.1)	222 (1.6)
Nation	21 (2.3)	21 (1.5)	31 (2.3)	22 (1.0)	48 (2.8)	57 (1.6)
	219 (3.1)	213 (2.1)	219 (2.0)	214 (2.1)	216 (1.9)	220 (1.2)
PARENTS' EDUCATION						
College graduate						
State	19 (3.4)	18 (1.9)	28 (3.6)	24 (1.7)	53 (4.3)	58 (2.7)
	220 (7.1)!	217 (4.3)	225 (3.4)	219 (3.2)	225 (2.7)	229 (2.4)
Nation	23 (2.7)	23 (1.9)	32 (2.9)	22 (1.1)	45 (3.3)	55 (2.2)
	228 (4.7)	220 (3.3)	227 (3.0)	222 (3.2)	223 (2.9)	229 (1.7)
Some after HS						
State	18 (3.7)	19 (2.6)	27 (4.1)	22 (3.3)	55 (4.7)	59 (4.3)
	*** (***.*)	*** (***.*)	*** (***.*)	*** (***.*)	225 (3.5)	229 (2.4)
Nation	22 (4.3)	23 (2.9)	37 (3.8)	22 (2.4)	42 (5.2)	55 (3.7)
	216 (4.1)!	216 (4.4)	228 (4.5)	222 (4.5)	223 (3.7)	227 (3.1)
HS graduate						
State	16 (3.6)	19 (2.3)	30 (3.9)	22 (2.3)	54 (4.9)	59 (3.0)
	*** (***.*)	*** (***.*)	220 (3.4)	208 (3.7)	213 (3.8)	218 (2.7)
Nation	22 (3.6)	17 (2.0)	25 (3.5)	25 (2.0)	53 (4.2)	56 (2.8)
	214 (5.2)	208 (5.0)	211 (2.5)	208 (4.0)	214 (3.2)	216 (1.9)
HS non-graduate						
State	18 (5.1)	15 (3.6)	34 (5.8)	20 (4.1)	48 (6.0)	65 (4.8)
	*** (***.*)	*** (***.*)	*** (***.*)	*** (***.*)	*** (***.*)	211 (4.3)
Nation	26 (4.8)	20 (2.9)	22 (3.7)	25 (3.4)	52 (5.3)	55 (4.0)
	*** (***.*)	*** (***.*)	*** (***.*)	*** (***.*)	204 (5.4)	207 (3.7)
I don't know						
State	13 (2.6)	17 (2.0)	30 (3.7)	19 (1.6)	57 (4.2)	64 (2.6)
	211 (4.0)!	206 (3.1)	213 (3.1)	207 (4.0)	209 (2.7)	215 (1.9)
Nation	18 (2.2)	19 (1.6)	33 (2.4)	21 (1.3)	49 (3.0)	59 (1.7)
	215 (3.6)	206 (2.5)	212 (2.5)	210 (2.2)	210 (2.1)	214 (1.6)
GENDER						
Male						
State	16 (2.6)	18 (1.9)	29 (3.5)	22 (1.2)	55 (3.9)	60 (2.4)
	212 (4.6)	209 (3.2)	217 (3.1)	209 (2.7)	215 (2.6)	220 (1.8)
Nation	21 (2.5)	21 (1.6)	32 (2.6)	24 (1.3)	47 (3.0)	55 (1.7)
	214 (3.9)	209 (2.7)	216 (2.5)	210 (2.7)	212 (2.1)	217 (1.6)
Female						
State	17 (2.7)	18 (1.7)	28 (3.2)	21 (1.5)	55 (3.8)	62 (2.3)
	218 (4.7)	215 (3.3)	221 (3.0)	218 (2.8)	220 (2.1)	223 (1.7)
Nation	21 (2.2)	20 (1.6)	30 (2.2)	21 (1.1)	49 (2.8)	59 (1.9)
	224 (3.1)	217 (2.2)	222 (2.0)	220 (2.1)	220 (2.2)	223 (1.3)

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within ± 2 standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). ! Interpret with caution -- the nature of the sample does not allow accurate determination of the variability of this statistic. *** Sample size is insufficient to permit a reliable estimate (fewer than 62 students).

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TABLE A18A | **Teachers' and Students' Reports on Discussing New or Difficult Vocabulary**

	Almost Every Day		At Least Once a Week		Less Than Weekly	
	Teacher	Student	Teacher	Student	Teacher	Student
	Percentage and Proficiency		Percentage and Proficiency		Percentage and Proficiency	
TOTAL						
State	50 (4.4)	31 (1.2)	49 (4.3)	40 (1.0)	1 (0.5)	29 (1.1)
	217 (2.0)	221 (1.7)	218 (2.5)	219 (1.8)	*** (**.*)	214 (2.1)
Nation	49 (2.4)	31 (0.9)	49 (2.3)	39 (1.0)	2 (0.8)	30 (0.8)
	215 (1.8)	216 (1.5)	219 (1.9)	221 (1.3)	219 (7.8)!	210 (1.3)
RACE/ ETHNICITY						
White						
State	49 (4.9)	29 (1.5)	50 (4.8)	41 (1.2)	1 (0.7)	29 (1.4)
	223 (1.5)	229 (1.8)	227 (1.8)	225 (1.9)	*** (**.*)	220 (2.1)
Nation	47 (2.9)	29 (1.0)	51 (2.9)	39 (1.3)	2 (0.9)	31 (1.1)
	223 (1.9)	225 (1.6)	225 (2.1)	230 (1.7)	*** (**.*)	217 (1.6)
Black						
State	50 (9.1)	39 (3.3)	49 (9.3)	35 (2.7)	1 (0.9)	25 (2.8)
	189 (3.6)!	196 (2.2)	187 (6.7)!	186 (4.2)	*** (**.*)	169 (4.4)
Nation	53 (3.9)	38 (2.1)	45 (3.9)	34 (1.9)	2 (0.8)	28 (1.8)
	194 (2.7)	196 (2.5)	196 (3.0)	195 (2.7)	*** (**.*)	187 (3.0)
Hispanic						
State	50 (6.2)	29 (2.7)	49 (6.2)	38 (3.7)	1 (0.7)	33 (3.0)
	200 (4.5)	199 (5.0)	195 (5.1)	204 (4.2)	*** (**.*)	194 (5.1)
Nation	63 (4.0)	34 (1.7)	36 (3.5)	39 (2.1)	1 (1.1)	27 (1.8)
	199 (2.3)	202 (2.8)	208 (4.2)	204 (2.4)	*** (**.*)	193 (3.8)
TYPE OF COMMUNITY						
Adv. urban						
State	27 (7.0)!	27 (3.4)!	68 (7.1)!	46 (4.3)!	4 (4.8)!	27 (6.3)!
	*** (**.*)	*** (**.*)	241 (4.3)!	241 (4.9)!	*** (**.*)	*** (**.*)
Nation	60 (10.9)!	32 (2.7)!	35 (13.0)!	41 (1.9)!	5 (5.6)!	27 (2.0)!
	236 (7.5)!	239 (5.9)!	*** (**.*)	243 (5.6)!	*** (**.*)	235 (5.0)!
Disadv. urban						
State	67 (11.1)!	34 (3.1)!	32 (11.4)!	39 (3.8)!	1 (1.1)!	26 (3.0)!
	195 (3.9)!	196 (4.6)!	189 (11.1)!	193 (5.7)!	*** (**.*)	186 (5.6)!
Nation	65 (7.7)	37 (2.8)	33 (7.4)	36 (2.3)	2 (1.6)	26 (2.8)
	192 (4.4)!	192 (4.1)	190 (4.9)!	189 (3.6)	*** (**.*)	181 (5.0)
Extreme rural						
State	58 (15.0)!	32 (2.9)!	42 (15.0)!	44 (2.6)!	0 (0.0)!	25 (3.3)!
	226 (5.2)!	*** (**.*)	226 (2.6)!	226 (3.0)!	*** (**.*)	*** (**.*)
Nation	42 (8.1)	35 (3.0)	58 (8.1)	36 (3.3)	0 (0.0)	29 (2.4)
	220 (5.2)!	219 (4.3)!	219 (4.6)!	222 (3.2)!	*** (**.*)	216 (4.0)
Other						
State	48 (5.9)	29 (1.7)	51 (5.9)	40 (1.5)	1 (0.6)	31 (1.7)
	222 (1.7)	225 (2.1)	219 (2.6)	221 (2.1)	*** (**.*)	216 (2.1)
Nation	48 (3.0)	30 (1.1)	50 (2.7)	39 (1.2)	2 (1.0)	31 (1.0)
	216 (2.2)	218 (1.7)	220 (2.1)	223 (1.7)	*** (**.*)	210 (1.5)

(continued on next page)

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TABLE A18A (continued) | **Teachers' and Students' Reports on Discussing New or Difficult Vocabulary**

	Almost Every Day		At Least Once a Week		Less Than Weekly	
	Teacher	Student	Teacher	Student	Teacher	Student
	Percentage and Proficiency		Percentage and Proficiency		Percentage and Proficiency	
TOTAL						
State	50 (4.4)	31 (1.2)	49 (4.3)	40 (1.0)	1 (0.5)	29 (1.1)
	217 (2.0)	221 (1.7)	218 (2.5)	219 (1.8)	*** (**.*)	214 (2.1)
Nation	49 (2.4)	31 (0.9)	49 (2.3)	39 (1.0)	2 (0.8)	30 (0.8)
	215 (1.8)	216 (1.5)	219 (1.9)	221 (1.3)	219 (7.8)!	210 (1.3)
PARENTS' EDUCATION						
College graduate						
State	47 (5.2)	32 (2.0)	52 (5.1)	41 (1.4)	1 (0.5)	27 (1.6)
	222 (3.4)	226 (2.9)	226 (3.1)	225 (2.8)	*** (**.*)	220 (3.5)
Nation	49 (2.5)	31 (1.2)	49 (2.6)	41 (1.4)	2 (1.0)	28 (1.2)
	224 (2.6)	224 (2.2)	226 (2.4)	229 (2.1)	*** (**.*)	220 (2.2)
Some after HS						
State	52 (6.2)	34 (2.8)	47 (6.0)	40 (3.1)	1 (0.9)	27 (2.7)
	226 (3.5)	230 (4.6)	225 (4.0)	227 (2.6)	*** (**.*)	220 (4.9)
Nation	54 (3.6)	31 (2.1)	45 (3.4)	40 (2.7)	1 (0.7)	29 (2.2)
	220 (3.5)	223 (3.4)	227 (3.9)	226 (4.0)	*** (**.*)	219 (4.1)
HS graduate						
State	51 (4.8)	32 (2.6)	48 (4.8)	43 (2.8)	2 (0.8)	25 (2.2)
	212 (3.2)	217 (4.0)	217 (4.1)	212 (2.7)	*** (**.*)	214 (4.1)
Nation	45 (4.4)	33 (2.5)	52 (4.1)	37 (2.3)	3 (1.3)	30 (2.3)
	209 (3.1)	211 (3.6)	217 (3.1)	218 (2.9)	*** (**.*)	207 (3.0)
HS non-graduate						
State	51 (6.3)	38 (5.6)	48 (6.0)	29 (4.6)	1 (0.9)	33 (4.9)
	*** (**.*)	*** (**.*)	*** (**.*)	*** (**.*)	*** (**.*)	*** (**.*)
Nation	48 (4.7)	28 (3.0)	51 (4.6)	37 (3.0)	2 (1.0)	35 (2.9)
	194 (4.2)	200 (3.7)	204 (6.2)	208 (4.0)	*** (**.*)	188 (5.5)
I don't know						
State	52 (4.3)	27 (1.8)	47 (4.3)	41 (1.7)	1 (0.6)	32 (1.8)
	212 (2.2)	214 (2.5)	210 (2.9)	214 (2.3)	*** (**.*)	207 (2.5)
Nation	50 (2.7)	31 (1.4)	48 (2.7)	36 (1.5)	2 (0.8)	33 (1.4)
	210 (2.2)	211 (2.1)	213 (2.2)	215 (1.6)	*** (**.*)	204 (1.9)
GENDER						
Male						
State	48 (4.5)	28 (1.4)	51 (4.4)	39 (1.5)	1 (0.7)	33 (1.6)
	215 (2.4)	218 (2.4)	216 (3.1)	216 (2.3)	*** (**.*)	213 (2.6)
Nation	51 (2.8)	30 (1.0)	47 (2.7)	38 (1.2)	2 (0.8)	32 (0.9)
	211 (2.2)	212 (2.2)	216 (2.5)	217 (1.7)	*** (**.*)	208 (1.9)
Female						
State	52 (4.7)	33 (1.7)	48 (4.6)	41 (1.3)	1 (0.4)	26 (1.4)
	219 (2.1)	223 (2.0)	221 (2.6)	221 (1.8)	*** (**.*)	214 (2.4)
Nation	48 (2.4)	33 (1.4)	50 (2.2)	39 (1.5)	2 (0.7)	28 (1.3)
	220 (2.0)	221 (1.4)	223 (1.9)	226 (1.6)	*** (**.*)	213 (1.8)

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within ± 2 standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). ! Interpret with caution -- the nature of the sample does not allow accurate determination of the variability of this statistic. *** Sample size is insufficient to permit a reliable estimate (fewer than 62 students).

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TABLE A18B | **Teachers' and Students' Reports on Asking Students to Talk to Each Other About What They Have Read**

	Almost Every Day		At Least Once a Week		Less Than Weekly	
	Teacher	Student	Teacher	Student	Teacher	Student
	Percentage and Proficiency		Percentage and Proficiency		Percentage and Proficiency	
TOTAL						
State	28 (3.2)	16 (0.8)	50 (3.2)	27 (1.0)	22 (2.7)	57 (1.2)
	216 (3.3)	209 (2.6)	220 (1.8)	216 (1.7)	213 (4.2)	221 (1.7)
Nation	32 (2.6)	17 (0.8)	49 (3.0)	28 (0.7)	19 (2.7)	55 (0.9)
	216 (2.3)	208 (2.0)	220 (1.8)	216 (1.8)	214 (3.0)	219 (1.3)
RACE/ ETHNICITY						
White						
State	27 (3.3)	14 (0.6)	52 (3.3)	27 (1.1)	21 (2.7)	59 (1.3)
	225 (2.8)	221 (2.6)	226 (1.7)	222 (1.8)	223 (2.4)	226 (1.7)
Nation	31 (2.8)	13 (1.0)	50 (3.5)	28 (1.0)	19 (3.2)	58 (1.1)
	223 (2.4)	220 (2.5)	226 (1.8)	225 (2.1)	222 (3.3)	225 (1.6)
Black						
State	36 (6.9)	28 (2.3)	34 (6.4)	27 (2.5)	30 (6.2)	45 (2.7)
	186 (3.1)!	185 (3.8)	194 (3.7)	191 (4.3)	183 (6.9)!	193 (3.4)
Nation	37 (3.8)	28 (2.2)	43 (4.0)	26 (1.8)	20 (3.6)	46 (2.0)
	192 (2.9)	190 (3.0)	199 (3.3)	189 (2.9)	191 (3.6)	198 (2.1)
Hispanic						
State	21 (3.7)	20 (2.9)	54 (5.4)	25 (3.6)	25 (5.0)	55 (4.0)
	*** (**.*)	*** (**.*)	198 (4.5)	*** (**.*)	*** (**.*)	203 (3.6)
Nation	32 (3.1)	21 (1.6)	48 (3.2)	33 (1.9)	20 (2.4)	46 (1.9)
	203 (3.4)	195 (4.3)	203 (4.0)	202 (3.5)	199 (4.4)	203 (2.7)
TYPE OF COMMUNITY						
Adv. urban						
State	45 (9.7)!	13 (1.5)!	51 (10.6)!	32 (4.3)!	5 (5.1)!	55 (3.6)!
	242 (5.0)!	*** (**.*)	239 (5.4)!	235 (5.1)!	*** (**.*)	245 (4.2)!
Nation	36 (14.7)!	14 (2.0)!	60 (14.3)!	30 (3.8)!	4 (3.0)!	56 (4.0)!
	*** (**.*)	*** (**.*)	243 (5.8)!	240 (6.5)!	*** (**.*)	239 (5.5)!
Disadv. urban						
State	28 (9.4)!	26 (4.1)!	42 (7.6)!	27 (1.9)!	29 (9.0)!	47 (3.7)!
	178 (4.3)!	183 (6.0)!	193 (5.3)!	195 (5.0)!	208 (7.7)!	197 (5.1)!
Nation	35 (5.3)	27 (2.7)	45 (6.4)	27 (1.8)	20 (5.2)	45 (2.5)
	190 (4.9)!	188 (4.3)	194 (5.4)!	184 (4.1)	189 (4.6)!	192 (2.8)
Extreme rural						
State	30 (13.0)!	15 (2.3)!	47 (9.6)!	27 (4.9)!	23 (8.1)!	58 (4.1)!
	*** (**.*)	*** (**.*)	226 (6.0)!	*** (**.*)	*** (**.*)	226 (3.8)!
Nation	36 (8.0)	17 (2.9)	41 (8.6)	28 (1.5)	23 (5.9)	55 (3.0)
	212 (5.2)!	213 (5.6)	225 (4.3)	221 (5.5)	221 (8.1)!	220 (3.2)!
Other						
State	27 (4.3)	15 (1.2)	54 (4.2)	27 (1.3)	19 (3.1)	58 (1.9)
	217 (3.2)	215 (3.2)	222 (2.3)	218 (1.6)	219 (3.6)	224 (1.9)
Nation	30 (2.9)	16 (0.9)	50 (3.1)	28 (0.8)	20 (3.4)	56 (1.1)
	218 (2.2)	209 (2.3)	219 (2.0)	217 (1.7)	215 (3.2)	220 (1.5)

(continued on next page)

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TABLE A18B (continued)

Teachers' and Students' Reports on Asking Students to Talk to Each Other About What They Have Read

	Almost Every Day		At Least Once a Week		Less Than Weekly	
	Teacher	Student	Teacher	Student	Teacher	Student
	Percentage and Proficiency		Percentage and Proficiency		Percentage and Proficiency	
TOTAL						
State	28 (3.2)	16 (0.8)	50 (3.2)	27 (1.0)	22 (2.7)	57 (1.2)
	216 (3.3)	209 (2.6)	220 (1.8)	216 (1.7)	213 (4.2)	221 (1.7)
Nation	32 (2.6)	17 (0.8)	49 (3.0)	28 (0.7)	19 (2.7)	55 (0.9)
	216 (2.3)	208 (2.0)	220 (1.8)	216 (1.8)	214 (3.0)	219 (1.3)
PARENTS' EDUCATION						
College graduate						
State	30 (3.5)	18 (1.3)	51 (3.6)	27 (1.6)	19 (2.8)	54 (1.7)
	222 (4.6)	212 (3.7)	227 (2.5)	222 (2.8)	218 (3.8)	229 (2.5)
Nation	33 (3.2)	17 (1.0)	49 (3.6)	29 (1.4)	18 (3.0)	54 (1.3)
	226 (3.7)	216 (3.6)	226 (2.5)	225 (2.7)	222 (3.8)	228 (1.7)
Some after HS						
State	32 (4.8)	16 (2.4)	44 (4.5)	28 (3.0)	23 (4.3)	56 (2.8)
	225 (4.6)	*** (**.*)	227 (2.9)	227 (3.7)	*** (**.*)	226 (3.3)
Nation	31 (3.6)	16 (1.7)	49 (4.4)	31 (2.7)	19 (3.9)	53 (2.8)
	218 (5.0)	218 (6.2)	228 (3.1)	225 (2.6)	*** (**.*)	223 (3.5)
HS graduate						
State	30 (3.9)	16 (2.1)	43 (4.2)	33 (2.8)	27 (3.5)	51 (2.9)
	209 (4.2)	*** (**.*)	217 (2.4)	214 (3.3)	214 (6.9)	216 (2.6)
Nation	35 (4.3)	18 (2.1)	44 (4.3)	28 (2.0)	21 (3.5)	54 (2.3)
	209 (3.1)	207 (4.7)	217 (3.1)	210 (3.1)	215 (4.7)	215 (2.3)
HS non-graduate						
State	29 (5.9)	13 (3.0)	45 (5.9)	23 (3.9)	27 (5.2)	64 (4.4)
	*** (**.*)	*** (**.*)	*** (**.*)	*** (**.*)	*** (**.*)	209 (4.8)
Nation	30 (4.9)	18 (2.6)	46 (4.4)	31 (3.0)	23 (3.4)	51 (3.6)
	190 (6.8)!	*** (**.*)	201 (4.6)	198 (4.7)	*** (**.*)	205 (4.3)
I don't know						
State	24 (3.3)	16 (1.2)	53 (3.5)	25 (1.5)	24 (3.3)	60 (2.0)
	212 (3.6)	204 (3.5)	213 (2.0)	207 (3.0)	204 (5.7)	215 (1.9)
Nation	30 (2.6)	16 (1.3)	50 (3.2)	27 (1.2)	19 (2.8)	57 (1.8)
	210 (2.2)	201 (2.2)	214 (2.1)	210 (2.3)	208 (3.3)	213 (1.4)
GENDER						
Male						
State	28 (3.7)	15 (1.0)	49 (3.4)	25 (1.3)	22 (2.9)	60 (1.6)
	215 (4.0)	207 (3.1)	218 (2.2)	213 (2.3)	209 (5.4)	219 (2.1)
Nation	32 (2.7)	16 (1.0)	49 (3.2)	28 (1.0)	19 (2.8)	56 (1.2)
	212 (3.1)	206 (3.0)	216 (2.1)	212 (2.6)	210 (3.2)	215 (1.3)
Female						
State	27 (3.1)	18 (1.1)	51 (3.3)	29 (1.4)	22 (2.8)	53 (1.5)
	217 (3.5)	211 (3.3)	222 (2.1)	219 (2.0)	216 (3.5)	224 (1.7)
Nation	31 (2.6)	18 (1.0)	49 (3.0)	29 (1.0)	19 (2.7)	54 (1.0)
	219 (2.1)	211 (2.1)	224 (2.1)	221 (2.0)	218 (3.4)	223 (1.5)

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within ± 2 standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). ! Interpret with caution -- the nature of the sample does not allow accurate determination of the variability of this statistic. *** Sample size is insufficient to permit a reliable estimate (fewer than 62 students).

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TABLE A18C

Teachers' and Students' Reports on Asking Students to Do a Group Activity or Project About What They Have Read

	Almost Every Day		At Least Once a Week		Less Than Weekly	
	Teacher	Student	Teacher	Student	Teacher	Student
	Percentage and Proficiency		Percentage and Proficiency		Percentage and Proficiency	
TOTAL						
State	3 (1.1)	11 (0.7)	19 (2.7)	25 (1.0)	79 (2.8)	65 (1.3)
	208 (6.7)!	202 (2.5)	221 (4.1)	211 (2.1)	217 (1.7)	223 (1.6)
Nation	3 (0.8)	12 (0.5)	21 (2.4)	24 (0.7)	76 (2.5)	64 (0.8)
	221 (4.6)!	200 (2.3)	219 (2.4)	213 (1.7)	217 (1.5)	221 (1.0)
RACE/ ETHNICITY						
White						
State	3 (1.1)	8 (0.7)	19 (3.0)	24 (1.2)	78 (3.2)	68 (1.5)
	*** (**.*)	213 (2.4)	226 (3.6)	218 (2.3)	225 (1.5)	229 (1.6)
Nation	3 (0.9)	9 (0.7)	21 (2.7)	23 (0.8)	75 (3.0)	68 (1.1)
	230 (4.5)!	210 (3.7)	226 (2.7)	222 (2.2)	224 (1.8)	228 (1.3)
Black						
State	1 (1.0)	20 (2.6)	19 (5.6)	28 (2.4)	80 (5.8)	51 (3.8)
	*** (**.*)	182 (4.6)	*** (**.*)	190 (4.2)	186 (3.9)	185 (3.0)
Nation	2 (1.2)	20 (1.7)	20 (3.7)	28 (1.3)	77 (3.7)	52 (2.0)
	*** (**.*)	185 (2.8)	196 (3.8)!	191 (2.5)	195 (2.2)	198 (2.1)
Hispanic						
State	5 (2.6)	15 (2.6)	12 (3.4)	23 (3.3)	83 (3.8)	62 (4.0)
	*** (**.*)	*** (**.*)	*** (**.*)	*** (**.*)	197 (3.2)	205 (3.1)
Nation	5 (1.7)	15 (1.1)	18 (3.1)	27 (1.9)	77 (3.3)	58 (1.9)
	*** (**.*)	197 (4.9)	205 (5.2)!	199 (3.6)	202 (2.7)	204 (2.1)
TYPE OF COMMUNITY						
Adv. urban						
State	0 (0.0)!	9 (1.9)!	33 (11.0)!	17 (5.9)!	67 (11.0)!	74 (7.4)!
	*** (**.*)	*** (**.*)	*** (**.*)	*** (**.*)	238 (3.1)!	244 (4.0)!
Nation	5 (3.4)!	5 (1.5)!	17 (7.1)!	20 (3.9)!	79 (8.3)!	75 (4.3)!
	*** (**.*)	*** (**.*)	*** (**.*)	*** (**.*)	243 (7.5)!	242 (4.4)!
Disadv. urban						
State	8 (4.8)!	19 (2.5)!	13 (6.8)!	24 (2.0)!	79 (8.6)!	57 (2.7)!
	*** (**.*)	182 (6.1)!	*** (**.*)	191 (6.1)!	196 (6.3)!	198 (4.8)!
Nation	4 (2.2)	19 (2.1)	15 (5.3)	26 (2.3)	81 (5.2)	54 (2.8)
	*** (**.*)	181 (3.2)	*** (**.*)	183 (4.3)	192 (3.8)!	195 (2.7)
Extreme rural						
State	0 (0.0)!	6 (1.2)!	20 (11.0)!	26 (3.2)!	80 (11.0)!	67 (3.4)!
	*** (**.*)	*** (**.*)	*** (**.*)	*** (**.*)	223 (4.1)!	230 (3.4)!
Nation	3 (2.4)	11 (1.6)	26 (10.7)	24 (2.2)	71 (12.6)	65 (2.8)
	*** (**.*)	*** (**.*)	227 (4.6)!	217 (3.8)	217 (3.9)!	223 (3.2)!
Other						
State	3 (1.4)	10 (1.0)	20 (3.4)	25 (1.3)	77 (3.7)	66 (1.7)
	*** (**.*)	209 (4.6)	218 (3.3)	215 (2.3)	221 (1.7)	225 (1.8)
Nation	3 (1.0)	11 (0.8)	21 (2.5)	25 (0.6)	76 (2.6)	64 (1.1)
	226 (4.9)!	203 (2.7)	219 (2.7)	216 (2.1)	218 (1.7)	221 (1.1)

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TABLE A18C (continued)

Teachers' and Students' Reports on Asking Students to Do a Group Activity or Project About What They Have Read

	Almost Every Day		At Least Once a Week		Less Than Weekly	
	Teacher	Student	Teacher	Student	Teacher	Student
	Percentage and Proficiency		Percentage and Proficiency		Percentage and Proficiency	
TOTAL						
State	3 (1.1)	11 (0.7)	19 (2.7)	25 (1.0)	79 (2.8)	65 (1.3)
	208 (6.7)!	202 (2.5)	221 (4.1)	211 (2.1)	217 (1.7)	223 (1.6)
Nation	3 (0.8)	12 (0.5)	21 (2.4)	24 (0.7)	76 (2.5)	64 (0.8)
	221 (4.6)!	200 (2.3)	219 (2.4)	213 (1.7)	217 (1.5)	221 (1.0)
PARENTS' EDUCATION						
College graduate						
State	3 (1.4)	11 (1.1)	22 (3.6)	27 (1.8)	74 (3.8)	62 (2.2)
	*** (** *)	206 (4.9)	228 (6.1)	217 (2.9)	223 (2.4)	230 (2.5)
Nation	3 (0.8)	11 (0.8)	19 (2.6)	24 (1.2)	78 (2.7)	65 (1.3)
	*** (** *)	208 (3.2)	225 (3.3)	221 (2.3)	225 (2.1)	230 (1.5)
Some after HS						
State	2 (1.2)	12 (2.7)	20 (4.0)	21 (2.6)	78 (4.1)	67 (3.7)
	*** (** *)	*** (** *)	*** (** *)	*** (** *)	224 (2.8)	229 (3.0)
Nation	4 (1.1)	10 (1.6)	24 (3.8)	30 (2.7)	72 (3.8)	61 (3.0)
	*** (** *)	*** (** *)	220 (5.9)	222 (4.1)	224 (2.4)	225 (2.5)
HS graduate						
State	2 (1.1)	11 (1.6)	16 (2.7)	26 (2.3)	81 (2.9)	63 (2.8)
	*** (** *)	*** (** *)	*** (** *)	209 (3.4)	215 (2.8)	220 (2.4)
Nation	4 (1.5)	12 (1.6)	20 (2.8)	26 (2.3)	76 (3.1)	62 (2.8)
	*** (** *)	193 (6.8)	215 (5.0)	210 (4.8)	213 (2.6)	217 (1.9)
HS non-graduate						
State	2 (1.6)	11 (3.2)	13 (3.6)	24 (4.6)	85 (3.9)	65 (5.9)
	*** (** *)	*** (** *)	*** (** *)	*** (** *)	208 (3.8)	215 (4.0)
Nation	4 (1.5)	17 (2.5)	15 (4.3)	23 (3.1)	81 (4.4)	59 (3.7)
	*** (** *)	*** (** *)	*** (** *)	194 (6.2)	201 (3.9)	204 (3.6)
I don't know						
State	3 (1.2)	10 (1.1)	16 (3.0)	23 (1.6)	81 (3.1)	67 (1.9)
	*** (** *)	199 (3.4)	213 (3.7)	203 (2.8)	210 (2.1)	217 (2.0)
Nation	3 (0.9)	12 (0.8)	23 (2.9)	23 (1.0)	74 (3.1)	65 (1.4)
	*** (** *)	196 (3.7)	218 (3.1)	207 (2.3)	209 (1.7)	215 (1.4)
GENDER						
Male						
State	3 (1.1)	11 (1.0)	19 (3.1)	25 (1.4)	78 (3.1)	65 (1.7)
	*** (** *)	200 (3.2)	219 (4.1)	210 (2.6)	215 (2.1)	221 (2.0)
Nation	3 (0.9)	12 (0.6)	21 (2.8)	26 (0.9)	75 (2.9)	62 (1.1)
	218 (5.7)!	198 (3.4)	217 (2.7)	210 (2.5)	213 (1.8)	217 (1.2)
Female						
State	3 (1.1)	10 (0.7)	18 (2.6)	24 (1.2)	79 (2.9)	65 (1.3)
	*** (** *)	204 (3.7)	222 (4.8)	213 (2.6)	219 (1.7)	226 (1.7)
Nation	3 (0.8)	11 (0.9)	20 (2.2)	23 (1.0)	76 (2.3)	66 (1.1)
	224 (4.9)!	204 (3.1)	223 (3.0)	217 (1.5)	221 (1.6)	225 (1.3)

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within ± 2 standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). ! Interpret with caution -- the nature of the sample does not allow accurate determination of the variability of this statistic. *** Sample size is insufficient to permit a reliable estimate (fewer than 62 students).

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TABLE A19A | **Teachers' and Students' Reports on Asking Students to Read Aloud**

	Almost Every Day		At Least Once a Week		Less Than Weekly	
	Teacher	Student	Teacher	Student	Teacher	Student
	Percentage and Proficiency		Percentage and Proficiency		Percentage and Proficiency	
TOTAL						
State	41 (4.1)	48 (1.6)	52 (4.0)	27 (1.1)	7 (2.0)	25 (1.2)
	214 (2.6)	220 (1.8)	219 (2.0)	219 (1.7)	229 (4.6)!	213 (2.4)
Nation	47 (2.9)	46 (1.3)	45 (2.5)	27 (1.0)	8 (1.7)	27 (1.0)
	213 (1.6)	217 (1.2)	221 (1.8)	220 (1.8)	224 (4.2)!	214 (1.6)
RACE/ ETHNICITY						
White						
State	38 (4.4)	48 (1.6)	54 (4.3)	27 (1.2)	8 (2.2)	25 (1.4)
	223 (1.9)	227 (1.9)	225 (1.7)	226 (1.8)	230 (5.0)!	220 (2.3)
Nation	44 (3.3)	44 (1.7)	48 (2.9)	28 (1.2)	8 (2.0)	27 (1.3)
	221 (2.0)	225 (1.7)	227 (2.1)	228 (2.1)	229 (4.1)!	222 (1.7)
Black						
State	52 (9.1)	50 (3.4)	45 (9.0)	28 (2.5)	3 (2.1)	22 (2.2)
	184 (5.3)!	183 (3.0)	191 (3.6)!	192 (4.0)	*** (**.*)	164 (5.5)
Nation	58 (4.3)	54 (1.9)	35 (4.0)	22 (1.4)	6 (2.3)	24 (1.7)
	194 (2.4)	198 (2.3)	195 (3.2)	194 (3.5)	*** (**.*)	187 (3.2)
Hispanic						
State	43 (6.3)	44 (3.2)	53 (6.3)	28 (2.8)	4 (2.0)	28 (2.7)
	196 (3.9)!	205 (3.9)	196 (4.3)	*** (**.*)	*** (**.*)	*** (**.*)
Nation	60 (3.6)	48 (2.4)	34 (3.0)	28 (2.0)	6 (2.2)	24 (1.8)
	199 (2.6)	204 (2.4)	207 (3.2)	201 (3.6)	*** (**.*)	199 (4.2)
TYPE OF COMMUNITY						
Adv. urban						
State	27 (11.4)!	36 (11.0)!	62 (10.5)!	34 (5.0)!	11 (7.3)!	29 (7.1)!
	*** (**.*)	240 (6.9)!	239 (3.7)!	242 (3.9)!	*** (**.*)	*** (**.*)
Nation	43 (11.6)!	46 (4.7)!	47 (12.5)!	33 (4.0)!	11 (7.1)!	21 (3.9)!
	231 (3.2)!	236 (5.2)!	252 (6.6)!	245 (7.5)!	*** (**.*)	237 (5.7)!
Disadv. urban						
State	55 (13.5)!	49 (4.2)!	45 (13.5)!	27 (2.7)!	0 (0.0)!	24 (2.5)!
	190 (3.3)!	194 (4.0)!	197 (10.7)!	198 (6.6)!	*** (**.*)	187 (6.3)!
Nation	69 (7.9)	53 (2.4)	26 (7.5)	23 (2.2)	5 (2.9)	25 (1.5)
	192 (4.7)!	195 (3.5)	187 (4.5)!	190 (3.9)	*** (**.*)	178 (3.9)
Extreme rural						
State	31 (16.5)!	50 (5.1)!	49 (16.2)!	25 (2.3)!	19 (10.9)!	25 (3.5)!
	*** (**.*)	227 (3.9)!	222 (5.6)!	*** (**.*)	*** (**.*)	*** (**.*)
Nation	49 (8.2)	50 (6.2)	47 (8.7)	26 (3.7)	4 (2.7)	24 (2.9)
	210 (4.3)!	222 (4.1)	226 (3.8)!	224 (5.4)!	*** (**.*)	212 (3.8)!
Other						
State	42 (5.4)	49 (2.0)	54 (5.2)	26 (1.3)	5 (2.2)	25 (1.5)
	219 (2.2)	225 (2.0)	221 (2.3)	219 (2.2)	*** (**.*)	215 (2.3)
Nation	45 (3.4)	45 (1.3)	47 (3.0)	27 (1.1)	9 (2.1)	28 (1.3)
	216 (2.1)	218 (1.4)	220 (2.0)	220 (1.9)	220 (4.8)!	217 (2.0)

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TABLE A19A (continued)

Teachers' and Students' Reports on Asking Students to Read Aloud

	Almost Every Day		At Least Once a Week		Less Than Weekly	
	Teacher	Student	Teacher	Student	Teacher	Student
	Percentage and Proficiency		Percentage and Proficiency		Percentage and Proficiency	
TOTAL						
State	41 (4.1)	48 (1.6)	52 (4.0)	27 (1.1)	7 (2.0)	25 (1.2)
	214 (2.6)	220 (1.8)	219 (2.0)	219 (1.7)	229 (4.6)!	213 (2.4)
Nation	47 (2.9)	46 (1.3)	45 (2.5)	27 (1.0)	8 (1.7)	27 (1.0)
	213 (1.6)	217 (1.2)	221 (1.8)	220 (1.8)	224 (4.2)!	214 (1.6)
PARENTS' EDUCATION						
College graduate						
State	38 (4.0)	48 (2.7)	56 (3.8)	28 (1.8)	7 (2.2)	24 (1.7)
	220 (3.4)	224 (2.6)	225 (3.2)	227 (2.5)	*** (***)	220 (3.4)
Nation	46 (3.3)	45 (2.1)	45 (2.6)	27 (1.5)	9 (2.2)	29 (1.6)
	219 (2.1)	223 (2.0)	230 (2.5)	230 (2.9)	232 (6.0)!	224 (2.8)
Some after HS						
State	34 (4.6)	45 (3.7)	55 (5.1)	32 (3.5)	11 (3.4)	23 (2.7)
	229 (3.8)	231 (2.7)	222 (4.1)	223 (4.7)	*** (***)	*** (***)
Nation	45 (3.8)	46 (3.2)	46 (3.4)	30 (2.8)	8 (2.8)	23 (2.2)
	219 (3.7)	224 (3.4)	227 (3.7)	227 (3.7)	*** (***)	216 (4.5)
HS graduate						
State	47 (5.4)	49 (3.4)	48 (5.4)	28 (2.4)	5 (2.2)	23 (2.8)
	209 (4.0)	219 (3.0)	219 (3.1)	212 (3.8)	*** (***)	209 (3.4)
Nation	51 (3.9)	50 (2.6)	42 (3.6)	24 (2.3)	7 (2.2)	26 (2.3)
	211 (2.7)	216 (2.5)	215 (3.3)	212 (3.1)	*** (***)	208 (4.2)
HS non-graduate						
State	51 (7.0)	47 (4.4)	46 (6.7)	29 (4.4)	4 (2.1)	24 (3.9)
	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
Nation	46 (6.1)	44 (3.8)	50 (5.6)	26 (3.9)	4 (2.2)	30 (3.6)
	194 (4.0)	203 (4.2)	205 (4.8)	196 (6.4)	*** (***)	198 (6.0)
I don't know						
State	43 (4.7)	46 (2.3)	50 (4.6)	24 (1.7)	7 (2.2)	28 (1.5)
	207 (3.1)	215 (2.4)	212 (2.3)	210 (2.5)	*** (***)	209 (3.3)
Nation	48 (3.4)	47 (1.8)	44 (3.0)	26 (1.4)	7 (1.7)	25 (1.3)
	208 (2.3)	212 (1.8)	214 (1.8)	214 (2.4)	217 (6.1)!	206 (1.9)
GENDER						
Male						
State	40 (4.4)	46 (1.9)	54 (4.4)	26 (1.4)	7 (2.0)	27 (1.5)
	212 (3.4)	218 (2.4)	216 (2.6)	215 (1.9)	223 (5.5)!	213 (2.9)
Nation	48 (3.1)	44 (1.6)	45 (2.6)	26 (1.2)	7 (1.8)	30 (1.1)
	210 (2.1)	214 (1.8)	217 (2.2)	216 (2.0)	220 (4.2)!	211 (2.0)
Female						
State	42 (4.1)	49 (2.1)	51 (3.9)	28 (1.4)	7 (2.1)	23 (1.6)
	216 (2.7)	223 (1.6)	221 (2.1)	222 (2.3)	234 (5.7)!	213 (2.6)
Nation	47 (3.0)	49 (1.7)	45 (2.6)	28 (1.4)	8 (1.8)	23 (1.4)
	216 (1.7)	220 (1.3)	226 (2.1)	225 (2.5)	227 (5.4)!	218 (1.7)

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within ± 2 standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). ! Interpret with caution -- the nature of the sample does not allow accurate determination of the variability of this statistic. *** Sample size is insufficient to permit a reliable estimate (fewer than 62 students).

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TABLE A19B | **Teachers' and Students' Reports on Asking Students to Read Silently**

	Almost Every Day		At Least Once a Week		Less Than Weekly	
	Teacher	Student	Teacher	Student	Teacher	Student
	Percentage and Proficiency		Percentage and Proficiency		Percentage and Proficiency	
TOTAL						
State	71 (3.1)	70 (1.8)	27 (2.9)	20 (1.2)	2 (0.9)	10 (0.8)
	218 (1.9)	222 (1.6)	217 (2.0)	215 (2.1)	*** (**.*)	200 (2.6)
Nation	75 (2.3)	67 (1.1)	23 (2.1)	22 (0.9)	2 (0.5)	11 (0.6)
	219 (1.8)	222 (1.3)	213 (2.3)	214 (1.6)	208 (5.6)!	193 (2.1)
RACE/ ETHNICITY						
White						
State	71 (3.5)	71 (1.8)	27 (3.2)	20 (1.3)	2 (1.0)	9 (0.9)
	226 (1.7)	228 (1.5)	223 (1.8)	222 (2.1)	*** (**.*)	208 (3.4)
Nation	76 (2.6)	69 (1.4)	23 (2.5)	22 (1.1)	1 (0.5)	10 (0.7)
	226 (2.0)	229 (1.6)	220 (2.3)	222 (2.1)	*** (**.*)	204 (2.4)
Black						
State	71 (6.8)	64 (4.7)	26 (6.2)	24 (3.3)	3 (2.9)	12 (3.2)
	186 (4.4)	193 (3.0)	194 (2.3)!	189 (4.8)	*** (**.*)	*** (**.*)
Nation	72 (4.7)	60 (2.2)	27 (4.7)	24 (1.9)	2 (0.9)	16 (1.5)
	195 (2.0)	200 (1.9)	193 (3.9)!	191 (3.4)	*** (**.*)	176 (3.6)
Hispanic						
State	64 (4.3)	65 (3.8)	35 (4.3)	23 (3.1)	1 (0.7)	12 (2.6)
	195 (3.4)	207 (3.5)	202 (5.5)	*** (**.*)	*** (**.*)	*** (**.*)
Nation	69 (5.7)	60 (2.0)	24 (5.3)	24 (1.6)	7 (2.4)	16 (1.3)
	204 (2.6)	209 (2.1)	201 (4.3)!	201 (3.4)	*** (**.*)	179 (5.1)
TYPE OF COMMUNITY						
Adv. urban						
State	91 (9.9)!	79 (6.3)!	9 (9.9)!	17 (5.2)!	0 (0.0)!	4 (2.3)!
	241 (4.5)!	242 (3.5)!	*** (**.*)	*** (**.*)	*** (**.*)	*** (**.*)
Nation	92 (5.1)!	68 (5.9)!	6 (5.1)!	23 (3.8)!	2 (1.8)!	9 (2.8)!
	241 (6.5)!	244 (5.4)!	*** (**.*)	230 (6.0)!	*** (**.*)	*** (**.*)
Disadv. urban						
State	53 (10.0)!	63 (4.4)!	43 (9.7)!	28 (3.4)!	4 (3.3)!	9 (1.4)!
	189 (6.7)!	197 (4.4)!	199 (4.2)!	192 (6.4)!	*** (**.*)	*** (**.*)
Nation	72 (8.1)	56 (3.2)	26 (8.2)	26 (2.4)	3 (0.9)	18 (2.1)
	194 (3.6)!	195 (2.5)	186 (5.4)!	188 (4.5)	*** (**.*)	174 (4.6)
Extreme rural						
State	81 (10.5)!	75 (3.9)!	19 (10.5)!	16 (2.9)!	0 (0.0)!	9 (2.0)!
	228 (3.0)!	227 (3.2)!	*** (**.*)	*** (**.*)	*** (**.*)	*** (**.*)
Nation	76 (5.2)	69 (3.2)	20 (4.6)	21 (2.5)	4 (2.6)	10 (1.3)
	220 (4.1)!	226 (2.7)	218 (4.1)!	210 (4.1)!	*** (**.*)	*** (**.*)
Other						
State	71 (4.6)	69 (2.4)	27 (4.5)	21 (1.5)	2 (1.1)	11 (1.2)
	219 (1.9)	225 (1.8)	222 (1.9)	217 (2.0)	*** (**.*)	204 (3.6)
Nation	74 (2.5)	67 (1.3)	25 (2.4)	22 (1.2)	1 (0.4)	11 (0.7)
	219 (2.0)	222 (1.5)	215 (2.6)	217 (2.0)	*** (**.*)	194 (2.6)

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TABLE A19B (continued) | **Teachers' and Students' Reports on Asking Students to Read Silently**

	Almost Every Day		At Least Once a Week		Less Than Weekly	
	Teacher	Student	Teacher	Student	Teacher	Student
	Percentage and Proficiency		Percentage and Proficiency		Percentage and Proficiency	
TOTAL						
State	71 (3.1)	70 (1.8)	27 (2.9)	20 (1.2)	2 (0.9)	10 (0.8)
	218 (1.9)	222 (1.6)	217 (2.0)	215 (2.1)	*** (**.*)	200 (2.6)
Nation	75 (2.3)	67 (1.1)	23 (2.1)	22 (0.9)	2 (0.5)	11 (0.6)
	219 (1.8)	222 (1.3)	213 (2.3)	214 (1.6)	208 (5.6)!	193 (2.1)
PARENTS' EDUCATION						
College graduate						
State	75 (3.6)	73 (2.2)	23 (3.2)	19 (1.6)	2 (1.1)	8 (1.2)
	225 (2.7)	227 (2.3)	222 (3.5)	221 (3.4)	*** (**.*)	205 (5.1)
Nation	78 (2.4)	68 (1.7)	20 (2.2)	23 (1.5)	2 (0.7)	9 (0.9)
	228 (2.2)	230 (1.9)	217 (3.9)	220 (2.3)	*** (**.*)	202 (3.4)
Some after HS						
State	68 (4.2)	74 (3.1)	31 (4.2)	19 (2.6)	1 (0.8)	7 (1.6)
	226 (3.2)	228 (2.8)	224 (4.5)	*** (**.*)	*** (**.*)	*** (**.*)
Nation	78 (3.6)	72 (2.2)	19 (3.1)	20 (2.0)	2 (1.3)	8 (1.5)
	223 (3.1)	227 (2.3)	226 (4.4)	222 (5.2)	*** (**.*)	*** (**.*)
HS graduate						
State	66 (3.9)	73 (2.6)	32 (3.7)	19 (2.1)	3 (1.6)	8 (1.7)
	213 (2.8)	216 (2.3)	217 (4.0)	213 (4.1)	*** (**.*)	*** (**.*)
Nation	72 (4.3)	64 (2.4)	26 (4.1)	23 (2.1)	2 (1.4)	12 (1.5)
	213 (2.9)	218 (2.2)	215 (3.7)	207 (3.9)	*** (**.*)	193 (3.7)
HS non-graduate						
State	61 (5.6)	65 (6.0)	36 (5.6)	24 (4.3)	3 (1.7)	11 (3.3)
	*** (**.*)	209 (4.4)	*** (**.*)	*** (**.*)	*** (**.*)	*** (**.*)
Nation	68 (4.6)	54 (4.4)	29 (4.7)	26 (3.0)	4 (1.6)	17 (3.3)
	199 (4.2)	206 (2.6)	*** (**.*)	205 (5.4)	*** (**.*)	*** (**.*)
I don't know						
State	69 (4.0)	65 (2.2)	29 (3.8)	23 (1.7)	2 (0.8)	12 (1.2)
	210 (2.3)	217 (2.0)	212 (2.4)	207 (2.9)	*** (**.*)	195 (3.4)
Nation	73 (2.6)	66 (1.6)	26 (2.6)	21 (1.2)	1 (0.3)	13 (1.0)
	212 (2.0)	216 (1.3)	210 (2.5)	209 (2.6)	*** (**.*)	190 (2.8)
GENDER						
Male						
State	72 (3.2)	69 (2.1)	26 (3.0)	20 (1.5)	2 (0.8)	11 (1.1)
	215 (2.4)	220 (1.9)	215 (2.4)	212 (2.6)	*** (**.*)	197 (3.7)
Nation	76 (2.4)	65 (1.3)	22 (2.2)	22 (1.0)	2 (0.5)	13 (0.8)
	215 (2.1)	220 (1.6)	210 (2.8)	210 (2.3)	*** (**.*)	189 (2.6)
Female						
State	69 (3.5)	71 (1.9)	28 (3.2)	21 (1.5)	2 (1.1)	8 (1.0)
	220 (1.9)	223 (1.6)	219 (2.7)	217 (2.7)	*** (**.*)	204 (3.5)
Nation	73 (2.4)	68 (1.4)	25 (2.3)	22 (1.3)	2 (0.6)	10 (0.7)
	223 (1.9)	225 (1.3)	216 (2.5)	218 (2.1)	*** (**.*)	199 (3.3)

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within ± 2 standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). ! Interpret with caution -- the nature of the sample does not allow accurate determination of the variability of this statistic. *** Sample size is insufficient to permit a reliable estimate (fewer than 62 students).

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TABLE A19C | **Teachers' and Students' Reports on Giving Students Time to Read Books They Have Chosen for Themselves**

	Almost Every Day		At Least Once a Week		Less Than Weekly	
	Teacher	Student	Teacher	Student	Teacher	Student
	Percentage and Proficiency		Percentage and Proficiency		Percentage and Proficiency	
TOTAL						
State	70 (3.5)	55 (1.4)	23 (3.1)	27 (1.1)	8 (2.1)	18 (0.9)
	219 (2.0)	224 (1.8)	213 (3.6)	214 (1.4)	214 (3.8)!	206 (2.9)
Nation	68 (2.7)	55 (1.5)	25 (2.3)	27 (1.1)	8 (1.2)	18 (0.8)
	220 (1.7)	223 (1.3)	213 (2.2)	215 (1.7)	207 (5.1)	203 (1.4)
RACE/ ETHNICITY						
White						
State	72 (3.7)	58 (1.6)	21 (3.4)	26 (1.3)	7 (2.5)	16 (1.0)
	226 (1.6)	230 (1.7)	223 (3.1)	220 (1.5)	221 (4.6)!	215 (3.1)
Nation	70 (3.2)	57 (1.9)	24 (2.8)	26 (1.4)	6 (1.5)	17 (1.1)
	227 (1.7)	230 (1.5)	219 (2.8)	223 (2.4)	216 (5.8)!	212 (1.8)
Black						
State	64 (6.8)	44 (3.5)	26 (6.6)	29 (3.4)	10 (3.1)	27 (2.7)
	188 (4.9)!	194 (3.9)	188 (5.7)!	192 (4.0)	*** (**.*)	183 (5.8)
Nation	60 (4.0)	49 (2.1)	26 (3.5)	30 (1.9)	14 (2.8)	21 (1.6)
	193 (2.3)	198 (2.3)	201 (3.0)	196 (3.3)	191 (6.2)!	181 (3.3)
Hispanic						
State	57 (5.3)	47 (4.2)	32 (5.3)	31 (3.6)	12 (3.3)	22 (3.2)
	199 (3.9)	204 (2.6)	*** (**.*)	202 (3.9)	*** (**.*)	*** (**.*)
Nation	61 (4.3)	49 (2.2)	32 (4.6)	31 (1.7)	7 (1.7)	21 (1.5)
	204 (2.7)	209 (2.4)	199 (3.7)	200 (3.1)	*** (**.*)	190 (4.1)
TYPE OF COMMUNITY						
Adv. urban						
State	83 (6.0)!	67 (5.7)!	13 (5.2)!	22 (4.2)!	4 (3.9)!	11 (3.3)!
	241 (4.6)!	244 (4.6)!	*** (**.*)	*** (**.*)	*** (**.*)	*** (**.*)
Nation	90 (6.4)!	61 (5.5)!	0 (0.4)!	24 (4.0)!	10 (6.4)!	16 (3.1)!
	245 (5.9)!	245 (5.2)!	*** (**.*)	236 (6.3)!	*** (**.*)	*** (**.*)
Disadv. urban						
State	60 (10.7)!	48 (4.9)!	34 (9.1)!	27 (2.5)!	6 (5.3)!	25 (3.6)!
	192 (8.4)!	196 (6.0)!	194 (3.8)!	194 (4.1)!	*** (**.*)	187 (7.4)!
Nation	56 (7.4)	48 (2.2)	28 (6.3)	28 (2.1)	16 (5.8)	24 (1.5)
	191 (5.1)!	192 (2.7)	193 (4.5)!	193 (2.6)	191 (6.1)!	177 (4.9)
Extreme rural						
State	94 (4.4)!	56 (2.7)!	6 (4.4)!	27 (2.3)!	0 (0.0)!	17 (3.2)!
	228 (3.0)!	232 (3.3)!	*** (**.*)	*** (**.*)	*** (**.*)	*** (**.*)
Nation	76 (6.9)	56 (4.5)	21 (6.4)	25 (2.7)	3 (1.1)	19 (2.1)
	220 (3.2)!	227 (2.4)	217 (7.8)!	215 (3.9)!	*** (**.*)	205 (6.3)!
Other						
State	69 (4.7)	56 (1.8)	23 (4.0)	27 (1.5)	8 (2.4)	17 (1.0)
	220 (1.7)	225 (1.8)	220 (4.1)!	218 (2.0)	216 (4.9)!	212 (4.0)
Nation	66 (3.4)	55 (1.8)	27 (3.0)	28 (1.4)	7 (1.3)	17 (1.1)
	220 (2.1)	224 (1.5)	215 (2.2)	216 (2.1)	208 (6.8)	206 (1.9)

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TABLE A19C (continued)

Teachers' and Students' Reports on Giving Students Time to Read Books They Have Chosen for Themselves

	Almost Every Day		At Least Once a Week		Less Than Weekly	
	Teacher	Student	Teacher	Student	Teacher	Student
	Percentage and Proficiency		Percentage and Proficiency		Percentage and Proficiency	
TOTAL						
State	70 (3.5)	55 (1.4)	23 (3.1)	27 (1.1)	8 (2.1)	18 (0.9)
	219 (2.0)	224 (1.8)	213 (3.6)	214 (1.4)	214 (3.8)!	206 (2.9)
Nation	68 (2.7)	55 (1.5)	25 (2.3)	27 (1.1)	8 (1.2)	18 (0.8)
	220 (1.7)	223 (1.3)	213 (2.2)	215 (1.7)	207 (5.1)	203 (1.4)
PARENTS' EDUCATION						
College graduate						
State	71 (3.4)	59 (2.2)	21 (3.3)	25 (1.7)	8 (2.4)	16 (1.2)
	225 (2.9)	229 (2.6)	221 (4.5)	221 (2.5)	*** (**.*)	213 (3.8)
Nation	71 (2.9)	58 (1.6)	22 (2.5)	27 (1.3)	8 (1.4)	15 (1.0)
	230 (2.0)	231 (1.8)	217 (3.7)	222 (2.6)	211 (6.6)	210 (3.3)
Some after HS						
State	73 (4.7)	56 (3.4)	17 (3.9)	29 (2.9)	10 (2.9)	16 (2.7)
	228 (3.3)	231 (3.6)	*** (**.*)	221 (3.8)	*** (**.*)	*** (**.*)
Nation	72 (3.9)	55 (3.8)	20 (2.8)	27 (3.0)	8 (3.8)	19 (2.3)
	226 (2.9)	230 (2.4)	217 (4.2)	221 (4.9)	*** (**.*)	208 (6.2)
HS graduate						
State	70 (4.5)	55 (3.1)	21 (4.0)	27 (2.7)	9 (2.9)	16 (2.5)
	213 (3.1)	218 (2.8)	*** (**.*)	216 (2.9)	*** (**.*)	*** (**.*)
Nation	64 (4.0)	55 (3.7)	26 (3.6)	25 (3.0)	10 (1.5)	20 (2.4)
	213 (2.5)	217 (2.5)	215 (4.7)	212 (3.6)	*** (**.*)	201 (3.8)
HS non-graduate						
State	65 (6.3)	45 (5.0)	27 (6.3)	26 (4.7)	8 (5.3)	28 (3.5)
	*** (**.*)	*** (**.*)	*** (**.*)	*** (**.*)	*** (**.*)	*** (**.*)
Nation	64 (4.7)	49 (3.3)	28 (3.9)	27 (3.0)	9 (2.6)	24 (2.7)
	200 (4.9)	205 (3.3)	*** (**.*)	199 (5.8)	*** (**.*)	*** (**.*)
I don't know						
State	68 (4.2)	52 (2.1)	27 (3.8)	27 (1.7)	6 (1.8)	20 (1.5)
	213 (2.4)	220 (2.1)	204 (4.2)	205 (2.2)	*** (**.*)	200 (3.8)
Nation	66 (2.8)	52 (1.8)	28 (2.5)	28 (1.3)	6 (1.0)	20 (1.2)
	212 (2.1)	217 (1.9)	211 (2.2)	209 (1.6)	202 (7.6)	200 (2.5)
GENDER						
Male						
State	69 (3.4)	53 (1.9)	23 (3.2)	27 (1.5)	8 (2.2)	20 (1.3)
	217 (2.3)	223 (2.0)	210 (4.7)	213 (2.2)	214 (3.9)!	201 (3.3)
Nation	69 (2.6)	52 (1.6)	23 (2.3)	29 (1.3)	8 (1.4)	19 (1.1)
	216 (1.9)	221 (1.6)	209 (3.0)	212 (2.1)	205 (5.1)	198 (2.4)
Female						
State	70 (3.8)	57 (1.6)	22 (3.3)	26 (1.5)	8 (2.2)	16 (1.2)
	221 (2.1)	225 (2.0)	216 (3.3)	215 (1.6)	215 (4.7)!	212 (3.6)
Nation	66 (2.9)	58 (1.8)	26 (2.6)	26 (1.5)	7 (1.1)	16 (0.9)
	224 (1.9)	226 (1.4)	218 (2.5)	219 (1.9)	209 (6.4)	209 (2.3)

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within ± 2 standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). ! Interpret with caution -- the nature of the sample does not allow accurate determination of the variability of this statistic. *** Sample size is insufficient to permit a reliable estimate (fewer than 62 students).

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TABLE A20 | **Teachers' Reports on Sending Students to the Library**

	At Least Once a Week	Once or Twice a Month	Never or Hardly Ever
	Percentage and Proficiency	Percentage and Proficiency	Percentage and Proficiency
TOTAL			
State	84 (2.9)	5 (1.4)	6 (2.0)
	221 (1.4)	210 (7.4)!	199 (5.2)!
Nation	85 (2.7)	9 (1.9)	5 (1.6)
	219 (1.5)	208 (4.2)!	209 (4.4)!
RACE/ ETHNICITY			
White			
State	90 (2.8)	3 (1.2)	6 (2.4)
	226 (1.4)	*** (** *)	210 (4.0)!
Nation	88 (3.0)	7 (1.9)	5 (1.9)
	225 (1.7)	218 (4.7)!	213 (4.2)!
Black			
State	54 (8.3)	10 (4.4)	12 (3.9)
	198 (2.9)!	*** (** *)	*** (** *)
Nation	79 (4.2)	16 (3.8)	5 (2.1)
	194 (2.2)	196 (4.8)!	*** (** *)
Hispanic			
State	75 (5.9)	8 (3.8)	5 (2.5)
	201 (3.0)	*** (** *)	*** (** *)
Nation	77 (3.1)	15 (2.6)	8 (2.2)
	204 (2.9)	197 (7.1)!	*** (** *)
TYPE OF COMMUNITY			
Adv. urban			
State	100 (0.0)!	0 (0.0)!	0 (0.0)!
	240 (4.3)!	*** (** *)	*** (** *)
Nation	92 (4.6)!	8 (4.6)!	0 (0.0)!
	243 (6.1)!	*** (** *)	*** (** *)
Disadv. urban			
State	71 (12.7)!	8 (4.2)!	8 (4.1)!
	200 (5.2)!	*** (** *)	*** (** *)
Nation	77 (6.0)	11 (2.7)	12 (5.6)
	193 (3.1)!	*** (** *)	*** (** *)
Extreme rural			
State	97 (3.5)!	3 (3.5)!	0 (0.0)!
	226 (3.8)!	*** (** *)	*** (** *)
Nation	96 (2.5)	4 (2.6)	0 (0.4)
	220 (3.3)	*** (** *)	*** (** *)
Other			
State	89 (3.4)	5 (2.1)	4 (2.1)
	221 (1.4)	224 (4.3)!	*** (** *)
Nation	83 (3.5)	10 (2.5)	6 (2.0)
	219 (1.8)	212 (4.3)!	212 (4.8)!

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TABLE A20 (continued)

Teachers' Reports on Sending Students to the Library

	At Least Once a Week	Once or Twice a Month	Never or Hardly Ever
	Percentage and Proficiency	Percentage and Proficiency	Percentage and Proficiency
TOTAL			
State	84 (2.9) 221 (1.4)	5 (1.4) 210 (7.4)!	6 (2.0) 199 (5.2)!
Nation	85 (2.7) 219 (1.5)	9 (1.9) 208 (4.2)!	5 (1.6) 209 (4.4)!
PARENTS' EDUCATION			
College graduate			
State	84 (3.1) 228 (2.4)	6 (1.7) *** (** .*)	6 (1.9) *** (** .*)
Nation	87 (2.6) 227 (2.0)	8 (1.8) 216 (3.9)!	5 (1.5) *** (** .*)
Some after HS			
State	88 (2.6) 229 (2.4)	4 (1.5) *** (** .*)	4 (1.5) *** (** .*)
Nation	90 (2.5) 225 (2.7)	5 (1.9) *** (** .*)	5 (1.6) *** (** .*)
HS graduate			
State	82 (4.1) 217 (2.2)	6 (2.4) *** (** .*)	6 (2.2) *** (** .*)
Nation	83 (3.6) 214 (2.7)	10 (2.5) *** (** .*)	8 (2.5) *** (** .*)
HS non-graduate			
State	84 (4.3) 206 (4.3)	0 (0.0) *** (** .*)	9 (3.8) *** (** .*)
Nation	81 (4.5) 201 (3.7)	13 (3.9) *** (** .*)	5 (2.1) *** (** .*)
I don't know			
State	84 (3.2) 215 (1.4)	4 (1.6) *** (** .*)	7 (2.3) *** (** .*)
Nation	83 (3.3) 213 (1.8)	11 (2.6) 206 (5.2)!	5 (1.7) 202 (6.0)!
GENDER			
Male			
State	85 (2.9) 219 (1.6)	4 (1.4) *** (** .*)	5 (1.8) *** (** .*)
Nation	86 (2.8) 215 (1.8)	9 (1.8) 202 (5.4)!	5 (1.7) 209 (4.1)!
Female			
State	83 (3.0) 224 (1.7)	5 (1.5) *** (** .*)	7 (2.3) 200 (5.0)!
Nation	85 (2.8) 223 (1.6)	10 (2.2) 215 (3.6)!	5 (1.5) 209 (6.7)!

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within ± 2 standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). Percentages may not add to 100 because a very small percentage of teachers reported that there was no library at their school. ! Interpret with caution -- the nature of the sample does not allow accurate determination of the variability of this statistic. *** Sample size is insufficient to permit a reliable estimate (fewer than 62 students).

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TABLE A21 | **Teachers' Reports on Assigning Books from the Library**

	At Least Once a Week	Once or Twice a Month	Never or Hardly Ever
	Percentage and Proficiency	Percentage and Proficiency	Percentage and Proficiency
TOTAL			
State	49 (3.5) 220 (1.8)	35 (3.0) 217 (2.6)	16 (2.6) 210 (5.6)
Nation	50 (2.8) 217 (1.6)	31 (2.7) 220 (2.2)	19 (2.3) 214 (2.8)
RACE/ ETHNICITY			
White			
State	51 (3.7) 225 (1.6)	35 (3.2) 225 (2.5)	14 (2.8) 223 (2.8)!
Nation	49 (3.1) 224 (1.9)	30 (3.0) 227 (2.4)	20 (2.5) 220 (3.1)
Black			
State	39 (8.8) 195 (3.3)!	31 (7.4) 186 (3.5)!	27 (9.2) 179 (9.8)!
Nation	50 (3.6) 193 (2.2)	31 (3.0) 197 (3.6)	18 (3.5) 194 (4.8)!
Hispanic			
State	46 (5.1) 202 (3.5)	38 (4.8) 196 (5.9)	12 (3.7) *** (**.*)
Nation	56 (5.6) 200 (2.7)	28 (3.8) 208 (5.0)	14 (3.5) 197 (4.9)!
TYPE OF COMMUNITY			
Adv. urban			
State	46 (9.3)! 240 (5.5)!	37 (14.0)! *** (**.*)	17 (11.0)! *** (**.*)
Nation	59 (12.5)! 249 (7.1)!	29 (11.6)! *** (**.*)	12 (6.2)! *** (**.*)
Disadv. urban			
State	50 (10.6)! 196 (3.9)!	36 (8.1)! 190 (10.6)!	11 (5.7)! *** (**.*)
Nation	57 (8.0) 193 (3.5)!	32 (6.3) 191 (6.9)!	11 (5.1) *** (**.*)
Extreme rural			
State	78 (10.4)! 226 (4.6)!	22 (10.4)! *** (**.*)	0 (0.0)! *** (**.*)
Nation	36 (7.9) 215 (4.7)!	38 (8.6) 226 (4.1)!	26 (5.1) 216 (6.4)!
Other			
State	48 (4.3) 221 (2.3)	37 (4.4) 219 (2.0)	15 (3.3) 219 (3.4)!
Nation	51 (3.4) 218 (1.5)	29 (2.9) 221 (2.5)	19 (2.8) 215 (2.9)

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TABLE A21 (continued)

Teachers' Reports on Assigning Books from the Library

	At Least Once a Week	Once or Twice a Month	Never or Hardly Ever
	Percentage and Proficiency	Percentage and Proficiency	Percentage and Proficiency
TOTAL			
State	49 (3.5)	35 (3.0)	16 (2.8)
	220 (1.8)	217 (2.6)	210 (5.8)
Nation	50 (2.8)	31 (2.7)	19 (2.3)
	217 (1.6)	220 (2.2)	214 (2.6)
PARENTS' EDUCATION			
College graduate			
State	46 (3.7)	36 (4.1)	18 (3.8)
	226 (2.7)	224 (4.0)	217 (5.4)!
Nation	51 (3.6)	31 (3.3)	18 (2.4)
	225 (2.7)	228 (2.5)	222 (3.9)
Some after HS			
State	52 (4.6)	30 (3.6)	17 (3.9)
	227 (3.3)	*** (***.*)	*** (***.*)
Nation	49 (5.7)	29 (5.0)	21 (3.3)
	225 (3.3)	223 (4.4)	218 (4.4)
HS graduate			
State	54 (4.0)	33 (3.7)	12 (3.1)
	219 (2.5)	211 (4.7)	*** (***.*)
Nation	42 (3.6)	35 (4.1)	23 (4.5)
	211 (3.1)	215 (3.4)	215 (4.0)!
HS non-graduate			
State	54 (7.2)	33 (5.9)	11 (3.5)
	*** (***.*)	*** (***.*)	*** (***.*)
Nation	48 (5.1)	37 (5.0)	15 (3.8)
	196 (3.7)	*** (***.*)	*** (***.*)
I don't know			
State	49 (4.1)	37 (3.7)	13 (3.1)
	214 (2.3)	211 (2.1)	198 (8.7)!
Nation	52 (3.0)	29 (2.8)	19 (2.2)
	211 (1.9)	214 (2.9)	208 (2.9)
GENDER			
Male			
State	50 (3.9)	34 (3.5)	16 (2.9)
	218 (2.1)	215 (3.4)	206 (7.7)
Nation	49 (2.9)	31 (2.8)	20 (2.3)
	213 (2.1)	216 (2.5)	211 (2.8)
Female			
State	48 (3.4)	35 (2.9)	16 (2.9)
	222 (2.2)	219 (2.7)	214 (4.6)
Nation	51 (3.0)	31 (2.8)	18 (2.5)
	221 (1.8)	224 (2.3)	218 (3.6)

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within ± 2 standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). Percentages may not add to 100 because a very small percentage of teachers reported that there was no library at their school. ! Interpret with caution -- the nature of the sample does not allow accurate determination of the variability of this statistic. *** Sample size is insufficient to permit a reliable estimate (fewer than 62 students).

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TABLE A22A | **Teachers' Reports on Assessing Students Via Multiple-Choice Tests**

	Once or Twice a Week	Once or Twice a Month	Once or Twice a Year	Never or Hardly Ever
	Percentage and Proficiency	Percentage and Proficiency	Percentage and Proficiency	Percentage and Proficiency
TOTAL				
State	9 (2.4)	48 (4.1)	21 (3.2)	23 (3.0)
	206 (7.0)!	217 (2.6)	219 (2.7)	221 (2.3)
Nation	14 (2.1)	49 (3.3)	15 (2.2)	21 (3.4)
	209 (3.2)	218 (1.7)	221 (2.5)	219 (3.5)
RACE/ ETHNICITY				
White				
State	6 (2.1)	47 (4.5)	22 (3.7)	25 (3.3)
	223 (4.0)!	226 (2.0)	224 (2.3)	223 (2.5)
Nation	12 (2.3)	50 (3.9)	16 (2.8)	22 (3.9)
	218 (3.8)	225 (1.8)	226 (2.6)	226 (3.6)
Black				
State	22 (7.7)	54 (8.0)	13 (5.3)	11 (4.1)
	192 (6.7)!	184 (5.3)!	*** (** *)	*** (** *)
Nation	23 (4.5)	52 (4.3)	10 (2.2)	15 (3.2)
	194 (4.3)!	196 (2.5)	199 (5.6)!	189 (5.3)!
Hispanic				
State	12 (4.7)	48 (6.4)	20 (3.7)	20 (4.6)
	*** (** *)	196 (3.9)	*** (** *)	*** (** *)
Nation	20 (3.1)	44 (4.5)	14 (2.4)	22 (4.5)
	199 (3.7)	203 (3.1)	205 (6.9)	204 (4.9)!
TYPE OF COMMUNITY				
Adv. urban				
State	0 (0.0)!	48 (10.3)!	11 (7.0)!	41 (9.2)!
	*** (** *)	244 (5.7)!	*** (** *)	237 (4.1)!
Nation	13 (7.1)!	55 (15.4)!	6 (2.7)!	26 (17.6)!
	*** (** *)	245 (5.9)!	*** (** *)	*** (** *)
Disadv. urban				
State	23 (11.5)!	69 (11.8)!	4 (3.2)!	4 (2.9)!
	202 (20.1)!	191 (3.2)!	*** (** *)	*** (** *)
Nation	19 (4.7)	53 (6.9)	8 (2.4)	21 (6.6)
	194 (6.2)!	192 (3.6)!	*** (** *)	191 (6.2)!
Extreme rural				
State	4 (4.5)!	58 (12.7)!	21 (6.5)!	17 (9.1)!
	*** (** *)	233 (3.6)!	*** (** *)	*** (** *)
Nation	15 (4.7)	45 (7.4)	13 (6.6)	27 (9.7)
	218 (11.4)!	217 (3.9)!	228 (2.6)!	220 (5.5)!
Other				
State	5 (2.0)	41 (6.0)	27 (4.9)	28 (4.6)
	226 (2.9)!	221 (1.6)	219 (3.0)!	218 (3.0)
Nation	14 (2.6)	50 (4.2)	17 (2.9)	19 (3.9)
	209 (3.6)	219 (2.2)	222 (3.0)	219 (3.6)

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TABLE A22A (continued)

Teachers' Reports on Assessing Students Via Multiple-Choice Tests

	Once or Twice a Week	Once or Twice a Month	Once or Twice a Year	Never or Hardly Ever
	Percentage and Proficiency	Percentage and Proficiency	Percentage and Proficiency	Percentage and Proficiency
TOTAL				
State	9 (2.4)	48 (4.1)	21 (3.2)	23 (3.0)
	206 (7.0)!	217 (2.6)	219 (2.7)	221 (2.3)
Nation	14 (2.1)	49 (3.3)	15 (2.2)	21 (3.4)
	209 (3.2)	218 (1.7)	221 (2.5)	219 (3.5)
PARENTS' EDUCATION				
College graduate				
State	10 (2.4)	43 (4.1)	21 (3.3)	27 (3.7)
	211 (6.3)!	224 (3.9)	224 (3.6)	230 (3.2)
Nation	13 (2.3)	46 (3.8)	17 (2.4)	22 (3.9)
	215 (4.7)	225 (2.4)	229 (3.3)	230 (4.7)
Some after HS				
State	10 (3.2)	46 (6.3)	23 (5.3)	20 (3.6)
	*** (**.*)	229 (3.0)	*** (**.*)	*** (**.*)
Nation	13 (3.1)	53 (5.3)	16 (3.0)	16 (4.0)
	*** (**.*)	226 (3.7)	*** (**.*)	*** (**.*)
HS graduate				
State	7 (2.4)	53 (4.9)	22 (4.2)	19 (3.4)
	*** (**.*)	214 (4.0)	*** (**.*)	*** (**.*)
Nation	13 (3.2)	54 (3.6)	15 (3.3)	19 (3.5)
	214 (6.1)!	211 (2.7)	218 (5.0)!	217 (4.8)
HS non-graduate				
State	10 (4.0)	50 (7.2)	19 (5.1)	21 (5.2)
	*** (**.*)	*** (**.*)	*** (**.*)	*** (**.*)
Nation	15 (3.2)	50 (5.0)	11 (3.6)	24 (4.7)
	*** (**.*)	203 (4.7)	*** (**.*)	*** (**.*)
I don't know				
State	9 (3.0)	50 (4.8)	20 (3.4)	21 (3.5)
	200 (11.5)!	210 (3.0)	214 (3.2)	213 (2.5)
Nation	16 (2.5)	49 (3.9)	14 (2.7)	21 (3.7)
	204 (3.1)	213 (2.0)	213 (4.0)	212 (3.8)
GENDER				
Male				
State	9 (2.5)	49 (4.4)	20 (3.3)	22 (3.2)
	205 (9.3)!	216 (3.0)	216 (3.3)	217 (3.1)
Nation	14 (2.3)	49 (3.6)	16 (2.6)	21 (3.6)
	205 (4.2)	214 (1.8)	219 (2.8)	215 (4.5)
Female				
State	9 (2.4)	47 (4.1)	21 (3.5)	23 (3.1)
	208 (6.0)!	219 (2.7)	222 (3.3)	224 (2.8)
Nation	14 (2.0)	50 (3.2)	15 (2.1)	21 (3.2)
	214 (3.1)	222 (2.0)	222 (3.2)	224 (3.4)

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within ± 2 standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). ! Interpret with caution -- the nature of the sample does not allow accurate determination of the variability of this statistic. *** Sample size is insufficient to permit a reliable estimate (fewer than 62 students).

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TABLE A22B | **Teachers' Reports on Assessing Students from Written Paragraphs About What They Have Read**

	Once or Twice a Week	Once or Twice a Month	Once or Twice a Year	Never or Hardly Ever
	Percentage and Proficiency	Percentage and Proficiency	Percentage and Proficiency	Percentage and Proficiency
TOTAL				
State	43 (3.5) 219 (2.3)	42 (3.9) 216 (2.4)	9 (1.7) 215 (5.6)!	6 (1.4) 221 (5.3)!
Nation	46 (2.5) 220 (2.3)	39 (2.6) 218 (1.6)	8 (1.4) 212 (3.9)	6 (1.3) 207 (4.5)!
RACE/ ETHNICITY				
White				
State	44 (3.9) 225 (2.2)	42 (4.3) 224 (1.6)	8 (1.8) 227 (4.4)!	5 (1.5) 228 (5.4)!
Nation	47 (3.1) 227 (2.4)	39 (3.0) 225 (1.8)	8 (1.7) 221 (3.5)!	6 (1.5) 211 (5.2)!
Black				
State	42 (6.8) 194 (4.6)!	42 (8.6) 183 (7.0)!	11 (3.4) *** (** *)	5 (1.3) *** (** *)
Nation	42 (4.0) 196 (3.2)	42 (3.8) 195 (2.7)	12 (2.9) 192 (5.5)!	5 (1.4) *** (** *)
Hispanic				
State	39 (4.1) 202 (4.8)	44 (4.8) 194 (4.1)	9 (2.4) *** (** *)	8 (3.0) *** (** *)
Nation	48 (4.8) 202 (3.9)	40 (4.6) 206 (3.0)	5 (1.2) *** (** *)	7 (2.1) *** (** *)
TYPE OF COMMUNITY				
Adv. urban				
State	58 (11.0)! 240 (7.2)!	34 (9.2)! 238 (3.2)!	0 (0.0)! *** (** *)	8 (8.8)! *** (** *)
Nation	74 (9.4)! 246 (6.8)!	20 (8.7)! *** (** *)	0 (0.0)! *** (** *)	6 (4.4)! *** (** *)
Disadv. urban				
State	42 (8.8)! 196 (6.3)!	45 (7.4)! 189 (5.1)!	6 (4.2)! *** (** *)	8 (4.2)! *** (** *)
Nation	46 (8.4) 190 (6.6)!	50 (8.2) 194 (3.4)!	3 (1.7) *** (** *)	1 (1.3) *** (** *)
Extreme rural				
State	29 (13.3)! *** (** *)	65 (13.7)! 223 (5.2)!	0 (0.0)! *** (** *)	6 (4.3)! *** (** *)
Nation	42 (8.2) 222 (4.1)!	44 (7.0) 221 (5.1)!	7 (3.8) *** (** *)	7 (3.5) *** (** *)
Other				
State	44 (4.8) 219 (2.5)	44 (5.6) 220 (2.0)	10 (2.6) 225 (5.1)!	3 (1.5) *** (** *)
Nation	45 (3.4) 220 (2.5)	39 (3.8) 219 (2.1)	10 (1.6) 213 (4.3)	6 (1.6) 210 (4.2)!

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TABLE A22B (continued)

Teachers' Reports on Assessing Students from Written Paragraphs About What They Have Read

	Once or Twice a Week	Once or Twice a Month	Once or Twice a Year	Never or Hardly Ever
	Percentage and Proficiency	Percentage and Proficiency	Percentage and Proficiency	Percentage and Proficiency
TOTAL				
State	43 (3.5)	42 (3.9)	9 (1.7)	6 (1.4)
	219 (2.3)	216 (2.4)	215 (5.6)!	221 (5.3)!
Nation	46 (2.5)	39 (2.6)	8 (1.4)	6 (1.3)
	220 (2.3)	218 (1.6)	212 (3.9)	207 (4.5)!
PARENTS' EDUCATION				
College graduate				
State	46 (3.5)	37 (3.8)	11 (2.2)	7 (2.2)
	225 (3.7)	223 (2.8)	218 (6.2)!	*** (** *)
Nation	49 (2.9)	38 (2.8)	8 (1.7)	5 (1.1)
	228 (2.9)	226 (2.5)	219 (5.2)!	211 (6.2)!
Some after HS				
State	51 (5.4)	37 (5.7)	7 (2.4)	5 (2.3)
	224 (3.7)	230 (2.9)	*** (** *)	*** (** *)
Nation	48 (3.9)	37 (4.3)	8 (2.4)	7 (2.2)
	227 (5.2)	222 (3.0)	*** (** *)	*** (** *)
HS graduate				
State	42 (4.4)	45 (5.0)	7 (2.1)	7 (2.1)
	217 (3.1)	212 (4.4)	*** (** *)	*** (** *)
Nation	46 (3.5)	39 (3.3)	8 (2.2)	6 (2.4)
	213 (2.7)	217 (3.0)	*** (** *)	*** (** *)
HS non-graduate				
State	31 (6.6)	52 (6.5)	9 (3.8)	7 (2.3)
	*** (** *)	*** (** *)	*** (** *)	*** (** *)
Nation	45 (5.1)	44 (5.7)	6 (1.9)	6 (1.8)
	201 (4.0)	193 (5.8)	*** (** *)	*** (** *)
I don't know				
State	41 (4.2)	47 (4.5)	7 (2.0)	5 (1.4)
	214 (2.2)	209 (2.8)	*** (** *)	*** (** *)
Nation	43 (3.1)	42 (3.3)	9 (1.6)	6 (1.4)
	213 (2.5)	213 (2.1)	205 (3.8)	203 (5.2)!
GENDER				
Male				
State	42 (3.8)	42 (4.1)	9 (1.8)	7 (1.8)
	217 (2.6)	213 (3.2)	213 (8.1)!	221 (6.7)!
Nation	47 (2.7)	39 (2.9)	8 (1.4)	6 (1.2)
	216 (2.7)	214 (1.9)	208 (4.9)	202 (4.6)!
Female				
State	44 (3.6)	43 (4.1)	6 (1.7)	5 (1.2)
	221 (2.6)	219 (2.3)	216 (4.9)!	*** (** *)
Nation	46 (2.6)	39 (2.5)	8 (1.8)	6 (1.5)
	224 (2.2)	222 (1.9)	215 (3.9)!	210 (5.3)!

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within ± 2 standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). ! Interpret with caution -- the nature of the sample does not allow accurate determination of the variability of this statistic. *** Sample size is insufficient to permit a reliable estimate (fewer than 62 students).

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TABLE A22C | **Teachers' Reports on Assessing Students Via Reading Portfolios**

	Once or Twice a Week	Once or Twice a Month	Once or Twice a Year	Never or Hardly Ever
	Percentage and Proficiency	Percentage and Proficiency	Percentage and Proficiency	Percentage and Proficiency
TOTAL				
State	8 (2.0)	16 (2.8)	16 (2.5)	58 (4.1)
	222 (7.3)!	218 (3.2)	217 (3.3)	216 (2.3)
Nation	14 (1.6)	25 (2.3)	13 (2.3)	47 (3.3)
	218 (4.3)	222 (2.4)	217 (3.6)	215 (1.5)
RACE/ ETHNICITY				
White				
State	9 (2.3)	19 (3.3)	15 (2.7)	58 (4.6)
	226 (8.0)!	225 (1.9)	226 (2.6)	224 (1.9)
Nation	15 (2.2)	26 (2.7)	13 (3.0)	47 (3.8)
	225 (4.5)	230 (2.5)	227 (3.0)!	220 (1.9)
Black				
State	6 (2.9)	14 (3.7)	22 (6.1)	58 (7.7)
	*** (** *)	*** (** *)	189 (3.6)!	186 (5.6)
Nation	14 (2.6)	23 (3.7)	15 (3.3)	48 (4.0)
	186 (4.4)	194 (2.6)	191 (5.3)!	198 (2.5)
Hispanic				
State	6 (2.0)	22 (6.0)	13 (3.7)	59 (6.2)
	*** (** *)	*** (** *)	*** (** *)	196 (4.0)
Nation	13 (3.0)	23 (3.3)	12 (2.2)	51 (3.9)
	204 (5.3)	205 (4.7)	191 (5.2)!	203 (3.2)
TYPE OF COMMUNITY				
Adv. urban				
State	17 (14.5)!	31 (18.7)!	12 (5.4)!	41 (20.3)!
	*** (** *)	*** (** *)	*** (** *)	239 (5.6)!
Nation	27 (14.6)!	46 (12.8)!	13 (5.2)!	14 (5.7)!
	*** (** *)	247 (6.9)!	*** (** *)	*** (** *)
Disadv. urban				
State	7 (4.4)!	18 (8.2)!	35 (8.4)!	40 (7.4)!
	*** (** *)	*** (** *)	196 (9.2)!	192 (6.1)!
Nation	18 (5.7)	21 (4.8)	13 (3.5)	49 (6.7)
	189 (7.4)!	190 (5.2)!	195 (8.3)!	190 (4.2)!
Extreme rural				
State	2 (2.3)!	23 (9.3)!	20 (11.5)!	55 (15.7)!
	*** (** *)	*** (** *)	*** (** *)	220 (2.8)!
Nation	9 (3.5)	24 (7.4)	6 (4.3)	60 (10.3)
	*** (** *)	233 (3.3)!	*** (** *)	217 (3.9)!
Other				
State	10 (2.8)	16 (3.4)	14 (3.2)	59 (5.0)
	215 (3.1)!	220 (2.4)!	222 (3.5)!	220 (2.2)
Nation	14 (2.3)	25 (2.9)	15 (2.8)	46 (3.8)
	219 (3.9)	220 (2.7)	218 (4.4)!	217 (1.8)

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TABLE A22C (continued)

Teachers' Reports on Assessing Students Via Reading Portfolios

	Once or Twice a Week	Once or Twice a Month	Once or Twice a Year	Never or Hardly Ever
	Percentage and Proficiency	Percentage and Proficiency	Percentage and Proficiency	Percentage and Proficiency
TOTAL				
State	8 (2.0)	18 (2.8)	16 (2.5)	58 (4.1)
	222 (7.3)!	218 (3.2)	217 (3.3)	216 (2.3)
Nation	14 (1.8)	25 (2.3)	13 (2.3)	47 (3.3)
	216 (4.3)	222 (2.4)	217 (3.8)	215 (1.5)
PARENTS' EDUCATION				
College graduate				
State	9 (3.1)	20 (3.7)	16 (2.5)	56 (4.9)
	233 (14.5)!	222 (4.3)!	219 (4.3)	225 (3.0)
Nation	15 (2.3)	27 (2.9)	13 (2.6)	45 (3.7)
	226 (7.6)	231 (3.1)	224 (4.4)!	223 (2.4)
Some after HS				
State	9 (2.8)	19 (3.9)	18 (3.9)	55 (5.7)
	*** (***)	*** (***)	*** (***)	226 (3.7)
Nation	15 (3.4)	27 (4.1)	11 (3.1)	47 (5.5)
	*** (***)	227 (6.2)	*** (***)	222 (3.1)
HS graduate				
State	6 (1.8)	17 (3.1)	19 (3.8)	58 (5.1)
	*** (***)	*** (***)	*** (***)	211 (3.5)
Nation	12 (3.0)	26 (3.4)	15 (2.9)	48 (4.6)
	*** (***)	217 (4.1)	212 (6.7)!	213 (2.7)
HS non-graduate				
State	10 (3.5)	12 (4.0)	11 (4.8)	67 (6.6)
	*** (***)	*** (***)	*** (***)	*** (***)
Nation	15 (3.2)	17 (3.7)	15 (4.1)	52 (5.4)
	*** (***)	*** (***)	*** (***)	197 (5.4)
I don't know				
State	7 (1.9)	19 (3.4)	14 (2.6)	60 (4.5)
	*** (***)	212 (4.0)	211 (4.6)	209 (2.7)
Nation	15 (2.1)	24 (2.6)	13 (2.6)	48 (3.5)
	212 (3.7)	215 (3.1)	214 (4.6)!	209 (1.8)
GENDER				
Male				
State	8 (2.2)	16 (2.6)	17 (2.9)	59 (4.4)
	221 (7.7)!	216 (3.9)	215 (3.9)	213 (2.9)
Nation	15 (1.8)	26 (2.5)	13 (2.4)	46 (3.4)
	213 (4.8)	220 (2.9)	212 (4.2)	211 (1.7)
Female				
State	8 (1.9)	20 (3.1)	15 (2.4)	57 (4.2)
	224 (7.7)!	219 (3.5)	219 (4.3)	220 (2.3)
Nation	14 (2.0)	25 (2.3)	13 (2.4)	48 (3.4)
	223 (4.8)	225 (2.8)	223 (3.9)	218 (1.6)

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within ± 2 standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). ! Interpret with caution -- the nature of the sample does not allow accurate determination of the variability of this statistic. *** Sample size is insufficient to permit a reliable estimate (fewer than 62 students).

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TABLE A26 | Students' Reports on Reading for Fun

	Almost Every Day	Once or Twice a Week	Once or Twice a Month	Never or Hardly Ever
	Percentage and Proficiency	Percentage and Proficiency	Percentage and Proficiency	Percentage and Proficiency
TOTAL				
State	44 (1.2)	34 (1.1)	12 (0.7)	10 (0.6)
	224 (1.9)	216 (1.6)	209 (2.4)	207 (3.0)
Nation	43 (1.0)	32 (0.9)	12 (0.5)	13 (0.6)
	223 (1.3)	218 (1.3)	209 (1.8)	199 (2.0)
RACE/ ETHNICITY				
White				
State	45 (1.5)	34 (1.3)	11 (0.9)	10 (0.6)
	231 (1.9)	222 (1.5)	215 (2.7)	213 (3.6)
Nation	44 (1.2)	32 (1.2)	12 (0.6)	12 (0.8)
	231 (1.6)	226 (1.5)	216 (2.0)	205 (2.5)
Black				
State	41 (2.9)	36 (1.8)	11 (1.1)	11 (1.7)
	190 (2.0)	192 (4.6)	*** (** *)	*** (** *)
Nation	40 (1.7)	31 (1.6)	13 (1.2)	16 (1.6)
	195 (2.2)	195 (2.6)	187 (4.0)	186 (3.9)
Hispanic				
State	40 (3.0)	35 (3.1)	15 (2.6)	10 (1.7)
	201 (4.0)	199 (4.4)	*** (** *)	*** (** *)
Nation	44 (2.1)	32 (1.9)	12 (1.3)	13 (1.1)
	206 (2.6)	200 (3.3)	199 (6.5)	188 (4.7)
TYPE OF COMMUNITY				
Adv. urban				
State	61 (5.0)!	29 (5.3)!	4 (2.0)!	6 (1.9)!
	244 (4.5)!	*** (** *)	*** (** *)	*** (** *)
Nation	52 (3.6)!	29 (3.6)!	12 (1.2)!	7 (2.0)!
	246 (5.3)!	239 (5.4)!	*** (** *)	*** (** *)
Disadv. urban				
State	41 (3.3)!	38 (3.1)!	11 (1.4)!	10 (1.2)!
	194 (5.5)!	195 (5.2)!	*** (** *)	*** (** *)
Nation	44 (1.9)	28 (2.1)	13 (1.9)	15 (1.9)
	193 (3.1)	188 (3.4)	184 (4.9)!	177 (5.3)
Extreme rural				
State	45 (2.7)!	30 (3.2)!	15 (2.2)!	10 (1.8)!
	229 (5.2)!	*** (** *)	*** (** *)	*** (** *)
Nation	43 (2.8)	30 (1.7)	13 (1.3)	14 (1.7)
	223 (3.7)	224 (3.8)	213 (5.2)!	202 (5.6)!
Other				
State	43 (1.6)	34 (1.5)	12 (1.0)	12 (1.0)
	228 (2.1)	220 (1.9)	212 (2.6)	208 (4.1)
Nation	42 (1.3)	33 (1.2)	11 (0.7)	13 (0.7)
	224 (1.4)	219 (1.4)	210 (2.3)	200 (2.2)

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TABLE A26 (continued) | **Students' Reports on Reading for Fun**

	Almost Every Day	Once or Twice a Week	Once or Twice a Month	Never or Hardly Ever
	Percentage and Proficiency	Percentage and Proficiency	Percentage and Proficiency	Percentage and Proficiency
TOTAL				
State	44 (1.2)	34 (1.1)	12 (0.7)	10 (0.6)
	224 (1.9)	216 (1.6)	209 (2.4)	207 (3.0)
Nation	43 (1.0)	32 (0.9)	12 (0.5)	13 (0.6)
	223 (1.3)	218 (1.3)	209 (1.8)	199 (2.0)
PARENTS' EDUCATION				
College graduate				
State	51 (2.0)	31 (1.7)	11 (1.3)	8 (0.8)
	230 (2.8)	224 (2.4)	207 (3.9)	208 (4.6)
Nation	48 (1.3)	32 (1.2)	10 (0.7)	10 (0.8)
	231 (2.2)	225 (1.7)	214 (2.8)	206 (3.7)
Some after HS				
State	40 (2.7)	38 (3.2)	14 (2.3)	8 (1.7)
	234 (3.5)	222 (3.9)	*** (***.*)	*** (***.*)
Nation	46 (2.7)	33 (3.0)	11 (1.8)	10 (1.6)
	227 (3.2)	224 (2.7)	*** (***.*)	*** (***.*)
HS graduate				
State	44 (2.4)	37 (2.3)	10 (1.4)	9 (1.6)
	217 (3.2)	211 (3.0)	*** (***.*)	*** (***.*)
Nation	38 (2.3)	34 (2.3)	15 (1.6)	13 (1.4)
	219 (3.1)	212 (3.7)	205 (3.4)	199 (4.1)
HS non-graduate				
State	34 (4.1)	32 (5.1)	15 (3.8)	19 (3.4)
	*** (***.*)	*** (***.*)	*** (***.*)	*** (***.*)
Nation	40 (3.3)	30 (3.3)	10 (2.1)	19 (3.5)
	205 (4.4)	202 (4.9)	*** (***.*)	*** (***.*)
I don't know				
State	40 (1.6)	35 (1.7)	12 (1.1)	13 (1.0)
	218 (2.4)	208 (2.3)	209 (3.6)	202 (4.2)
Nation	40 (1.6)	31 (1.6)	13 (0.9)	16 (1.1)
	215 (1.7)	214 (1.9)	205 (3.0)	196 (2.4)
GENDER				
Male				
State	36 (1.5)	36 (1.4)	15 (1.0)	13 (0.9)
	222 (2.6)	215 (2.5)	208 (1.9)	208 (3.7)
Nation	36 (1.3)	33 (1.3)	14 (0.7)	17 (1.0)
	218 (1.7)	216 (1.8)	209 (2.4)	199 (2.8)
Female				
State	52 (1.5)	32 (1.5)	8 (0.7)	8 (0.9)
	225 (1.9)	217 (1.7)	211 (4.7)	204 (4.2)
Nation	51 (1.3)	30 (1.1)	9 (0.6)	9 (0.7)
	226 (1.4)	221 (1.4)	208 (3.2)	199 (2.7)

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within ± 2 standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). ! Interpret with caution -- the nature of the sample does not allow accurate determination of the variability of this statistic. *** Sample size is insufficient to permit a reliable estimate (fewer than 62 students).

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TABLE A27

Students' Reports on the Number of Books Read Outside of School in the Past Month

	None	One or Two	Three or Four	Five or More
	Percentage and Proficiency	Percentage and Proficiency	Percentage and Proficiency	Percentage and Proficiency
TOTAL				
State	6 (0.6)	27 (1.1)	24 (1.0)	42 (1.4)
	200 (3.5)	217 (2.1)	219 (2.0)	220 (1.7)
Nation	7 (0.4)	25 (0.8)	24 (0.7)	44 (1.0)
	196 (2.6)	215 (1.6)	220 (1.6)	218 (1.3)
RACE/ ETHNICITY				
White				
State	6 (0.5)	29 (1.3)	25 (1.1)	41 (1.6)
	211 (3.9)	223 (2.3)	224 (2.1)	228 (1.9)
Nation	6 (0.6)	27 (1.1)	25 (0.9)	42 (1.4)
	205 (3.6)	223 (1.8)	228 (2.0)	227 (1.6)
Black				
State	11 (2.1)	22 (1.8)	25 (3.4)	42 (2.6)
	*** (** *)	189 (5.8)	193 (4.4)	191 (3.1)
Nation	10 (1.1)	20 (1.5)	20 (1.4)	49 (1.8)
	179 (4.6)	189 (3.9)	194 (3.2)	197 (2.1)
Hispanic				
State	6 (1.8)	25 (3.0)	20 (3.3)	49 (3.0)
	*** (** *)	*** (** *)	*** (** *)	198 (4.2)
Nation	8 (1.1)	24 (1.8)	22 (1.8)	46 (2.5)
	190 (4.4)	193 (3.5)	203 (3.1)	205 (2.9)
TYPE OF COMMUNITY				
Adv. urban				
State	4 (0.9)!	24 (6.2)!	29 (1.4)!	43 (5.6)!
	*** (** *)	*** (** *)	*** (** *)	240 (7.1)!
Nation	3 (1.1)!	26 (3.8)!	28 (2.8)!	43 (5.5)!
	*** (** *)	235 (5.3)!	239 (6.4)!	244 (5.8)!
Disadv. urban				
State	9 (1.4)!	25 (2.0)!	23 (1.8)!	43 (2.4)!
	*** (** *)	194 (5.5)!	191 (5.0)!	195 (5.5)!
Nation	8 (0.9)	22 (1.4)	20 (1.6)	50 (1.9)
	*** (** *)	182 (3.9)	188 (3.9)	192 (3.1)
Extreme rural				
State	5 (1.4)!	30 (3.4)!	21 (2.5)!	44 (5.1)!
	*** (** *)	*** (** *)	*** (** *)	224 (4.4)!
Nation	9 (1.7)	26 (3.1)	25 (1.9)	40 (2.5)
	*** (** *)	218 (5.2)!	225 (3.6)	222 (2.9)
Other				
State	6 (0.7)	28 (1.6)	24 (1.9)	42 (2.2)
	203 (4.6)	220 (2.3)	221 (2.4)	224 (2.1)
Nation	7 (0.6)	25 (1.0)	23 (0.8)	44 (1.2)
	199 (3.3)	216 (1.8)	220 (2.0)	219 (1.5)

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TABLE A27 (continued)

Students' Reports on the Number of Books Read Outside of School in the Past Month

	None	One or Two	Three or Four	Five or More
	Percentage and Proficiency	Percentage and Proficiency	Percentage and Proficiency	Percentage and Proficiency
TOTAL				
State	6 (0.6)	27 (1.1)	24 (1.0)	42 (1.4)
	200 (3.5)	217 (2.1)	219 (2.0)	220 (1.7)
Nation	7 (0.4)	25 (0.8)	24 (0.7)	44 (1.0)
	196 (2.6)	215 (1.6)	220 (1.6)	218 (1.3)
PARENTS' EDUCATION				
College graduate				
State	5 (0.7)	28 (2.0)	22 (1.6)	45 (2.3)
	*** (***)	221 (2.8)	227 (3.5)	227 (2.5)
Nation	6 (0.6)	22 (1.1)	26 (1.3)	47 (1.4)
	203 (5.3)	223 (1.7)	228 (2.0)	226 (2.2)
Some after HS				
State	3 (0.9)	28 (2.3)	30 (2.4)	39 (3.5)
	*** (***)	225 (4.1)	229 (3.2)	224 (4.2)
Nation	8 (1.3)	25 (2.4)	25 (2.4)	41 (2.5)
	*** (***)	228 (4.6)	223 (3.3)	224 (3.3)
HS graduate				
State	8 (1.8)	25 (2.3)	23 (2.4)	43 (2.7)
	*** (***)	218 (3.8)	214 (3.5)	214 (2.9)
Nation	7 (1.1)	28 (2.4)	24 (2.1)	41 (2.8)
	*** (***)	212 (2.6)	213 (4.6)	215 (2.6)
HS non-graduate				
State	12 (2.6)	22 (4.1)	25 (3.9)	40 (4.7)
	*** (***)	*** (***)	*** (***)	*** (***)
Nation	13 (2.4)	27 (3.4)	21 (2.9)	40 (3.8)
	*** (***)	193 (6.5)	*** (***)	199 (4.5)
I don't know				
State	8 (1.0)	28 (1.9)	24 (1.7)	41 (2.0)
	200 (5.4)	212 (2.8)	210 (2.7)	214 (2.2)
Nation	8 (0.7)	28 (1.1)	21 (0.8)	43 (1.5)
	192 (4.1)	209 (2.4)	213 (2.2)	212 (1.8)
GENDER				
Male				
State	8 (0.8)	30 (1.4)	24 (1.2)	38 (1.7)
	201 (4.8)	216 (2.7)	217 (2.4)	217 (2.1)
Nation	10 (0.8)	27 (1.2)	24 (1.0)	39 (1.2)
	198 (2.9)	213 (2.2)	217 (2.2)	213 (1.7)
Female				
State	5 (0.7)	25 (1.3)	24 (1.5)	47 (1.9)
	*** (***)	220 (2.7)	220 (2.4)	222 (1.9)
Nation	4 (0.4)	23 (1.1)	24 (1.1)	49 (1.3)
	192 (4.9)	217 (1.9)	223 (1.7)	223 (1.4)

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within ± 2 standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). ! Interpret with caution -- the nature of the sample does not allow accurate determination of the variability of this statistic. *** Sample size is insufficient to permit a reliable estimate (fewer than 62 students).

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TABLE A28 | **Students' Reports on Taking Books Out of the Library**

	Almost Every Day	Once or Twice a Week	Once or Twice a Month	Never or Hardly Ever
	Percentage and Proficiency	Percentage and Proficiency	Percentage and Proficiency	Percentage and Proficiency
TOTAL				
State	15 (0.8)	48 (1.3)	21 (1.1)	15 (0.8)
	212 (2.5)	222 (1.6)	221 (2.2)	206 (2.7)
Nation	15 (0.6)	48 (0.9)	22 (0.8)	15 (0.7)
	212 (1.7)	220 (1.3)	220 (1.4)	203 (1.8)
RACE/ ETHNICITY				
White				
State	14 (0.9)	51 (1.5)	21 (1.3)	13 (0.9)
	220 (2.6)	227 (1.7)	228 (2.3)	215 (2.5)
Nation	13 (0.7)	50 (1.1)	24 (1.1)	14 (0.8)
	222 (2.2)	228 (1.5)	227 (1.9)	212 (2.3)
Black				
State	18 (3.0)	30 (3.1)	24 (2.0)	27 (3.3)
	*** (** *)	195 (3.5)	191 (5.2)	186 (5.7)
Nation	20 (1.3)	42 (1.7)	17 (1.3)	20 (1.6)
	192 (2.8)	197 (2.4)	196 (3.5)	183 (3.3)
Hispanic				
State	19 (3.0)	51 (3.4)	16 (2.4)	14 (2.9)
	*** (** *)	204 (3.3)	*** (** *)	*** (** *)
Nation	19 (1.6)	47 (1.6)	17 (1.2)	17 (1.5)
	200 (4.4)	205 (2.9)	200 (3.5)	192 (3.4)
TYPE OF COMMUNITY				
Adv. urban				
State	12 (2.6)!	56 (3.5)!	24 (2.0)!	8 (3.2)!
	*** (** *)	241 (5.1)!	*** (** *)	*** (** *)
Nation	11 (1.7)!	52 (4.1)!	29 (3.4)!	9 (1.6)!
	*** (** *)	241 (5.3)!	239 (7.6)!	*** (** *)
Disadv. urban				
State	19 (2.4)!	42 (3.7)!	19 (2.5)!	20 (2.4)!
	185 (5.7)!	198 (5.4)!	192 (5.1)!	189 (5.4)!
Nation	18 (1.7)	40 (2.7)	19 (1.5)	23 (2.5)
	190 (3.7)	193 (3.4)	189 (3.9)	181 (3.4)
Extreme rural				
State	18 (1.9)!	42 (4.3)!	21 (1.9)!	18 (2.7)!
	*** (** *)	226 (3.0)!	*** (** *)	*** (** *)
Nation	13 (1.8)	51 (3.7)	19 (2.9)	17 (3.3)
	218 (4.8)	223 (3.5)!	218 (4.1)!	209 (5.7)!
Other				
State	15 (1.1)	48 (1.7)	22 (1.4)	14 (0.9)
	216 (2.9)	224 (1.8)	224 (2.8)	212 (3.1)
Nation	15 (0.7)	49 (1.0)	22 (1.0)	14 (0.7)
	213 (2.0)	221 (1.5)	222 (1.6)	205 (2.1)

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TABLE A28 (continued)

Students' Reports on Taking Books Out of the Library

	Almost Every Day	Once or Twice a Week	Once or Twice a Month	Never or Hardly Ever
	Percentage and Proficiency	Percentage and Proficiency	Percentage and Proficiency	Percentage and Proficiency
TOTAL				
State	15 (0.8)	48 (1.3)	21 (1.1)	15 (0.8)
	212 (2.5)	222 (1.6)	221 (2.2)	206 (2.7)
Nation	15 (0.6)	48 (0.9)	22 (0.8)	15 (0.7)
	212 (1.7)	220 (1.3)	220 (1.4)	203 (1.8)
PARENTS' EDUCATION				
College graduate				
State	16 (1.2)	47 (1.8)	24 (1.7)	13 (1.3)
	215 (4.1)	229 (2.5)	227 (3.2)	210 (5.2)
Nation	16 (1.1)	48 (1.5)	23 (1.3)	12 (0.9)
	218 (2.7)	229 (2.0)	229 (1.9)	210 (2.5)
Some after HS				
State	14 (2.1)	53 (3.5)	21 (2.7)	12 (1.8)
	*** (** *)	227 (2.9)	*** (** *)	*** (** *)
Nation	13 (2.0)	56 (2.8)	21 (2.4)	11 (1.8)
	*** (** *)	223 (2.6)	227 (6.1)	*** (** *)
HS graduate				
State	16 (2.1)	49 (3.1)	23 (2.6)	13 (1.9)
	*** (** *)	217 (3.1)	217 (3.6)	*** (** *)
Nation	16 (1.6)	47 (2.4)	21 (2.0)	16 (1.9)
	207 (4.9)	217 (2.5)	215 (2.8)	202 (4.7)
HS non-graduate				
State	9 (2.9)	52 (4.8)	14 (3.5)	24 (4.5)
	*** (** *)	*** (** *)	*** (** *)	*** (** *)
Nation	19 (2.9)	40 (3.5)	18 (2.4)	22 (2.6)
	*** (** *)	204 (4.4)	*** (** *)	*** (** *)
I don't know				
State	16 (1.4)	48 (2.1)	17 (1.4)	19 (1.4)
	208 (3.5)	216 (1.9)	211 (3.3)	202 (3.7)
Nation	13 (0.9)	48 (1.1)	21 (1.2)	18 (1.0)
	207 (2.9)	214 (1.9)	213 (2.1)	199 (2.5)
GENDER				
Male				
State	15 (1.1)	47 (1.6)	21 (1.2)	17 (1.2)
	206 (3.4)	220 (2.1)	218 (2.6)	209 (3.4)
Nation	13 (0.7)	46 (1.1)	24 (1.2)	16 (0.9)
	207 (2.9)	216 (1.7)	218 (1.7)	201 (2.4)
Female				
State	16 (1.1)	50 (1.5)	20 (1.5)	14 (1.0)
	218 (2.7)	224 (1.8)	223 (2.3)	203 (3.2)
Nation	16 (1.0)	51 (1.2)	19 (1.0)	14 (0.9)
	217 (2.0)	224 (1.5)	224 (2.2)	206 (2.4)

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within ± 2 standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). ! Interpret with caution -- the nature of the sample does not allow accurate determination of the variability of this statistic. *** Sample size is insufficient to permit a reliable estimate (fewer than 62 students).

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TABLE A29 | **Students' Reports on Types of Reading Materials in the Home**

	Zero to Two Types	Three Types	Four Types
	Percentage and Proficiency	Percentage and Proficiency	Percentage and Proficiency
TOTAL			
State	30 (1.5) 206 (1.9)	35 (1.0) 221 (1.9)	34 (1.6) 224 (2.0)
Nation	33 (0.9) 204 (0.9)	32 (0.7) 219 (1.6)	36 (1.0) 226 (1.5)
RACE/ ETHNICITY			
White			
State	26 (1.6) 216 (1.8)	36 (1.2) 226 (2.0)	37 (1.8) 229 (2.2)
Nation	26 (1.0) 214 (1.5)	33 (0.8) 226 (2.0)	41 (1.3) 230 (1.6)
Black			
State	46 (2.5) 182 (3.1)	34 (2.7) 195 (4.4)	20 (1.6) 194 (6.5)
Nation	49 (2.2) 188 (2.4)	28 (1.6) 193 (2.7)	23 (2.0) 202 (2.5)
Hispanic			
State	44 (4.9) 192 (4.9)	25 (3.1) *** (**.*)	30 (3.7) 206 (4.7)
Nation	47 (1.9) 191 (2.5)	32 (2.1) 206 (2.9)	21 (1.8) 214 (3.8)
TYPE OF COMMUNITY			
Adv. urban			
State	14 (2.7)! *** (**.*)	28 (4.7)! *** (**.*)	58 (5.0)! 241 (4.3)!
Nation	17 (3.5)! *** (**.*)	30 (2.8)! 239 (5.0)!	53 (3.1)! 243 (5.4)!
Disadv. urban			
State	48 (4.9)! 185 (5.2)!	35 (3.9)! 199 (5.1)!	18 (2.4)! 201 (5.0)!
Nation	56 (2.6) 183 (2.9)	29 (2.2) 192 (3.1)	15 (2.3) 200 (5.3)!
Extreme rural			
State	28 (4.1)! *** (**.*)	42 (1.7)! 223 (3.6)!	29 (3.6)! *** (**.*)
Nation	33 (3.6) 211 (3.0)!	31 (2.7) 224 (5.3)!	36 (2.8) 222 (2.9)
Other			
State	28 (1.9) 213 (2.4)	35 (1.5) 224 (2.1)	37 (2.3) 223 (2.5)
Nation	31 (1.2) 206 (1.4)	32 (0.9) 219 (1.7)	37 (1.2) 225 (1.6)

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TABLE A29 (continued)

Students' Reports on Types of Reading Materials in the Home

	Zero to Two Types	Three Types	Four Types
	Percentage and Proficiency	Percentage and Proficiency	Percentage and Proficiency
TOTAL			
State	30 (1.5)	35 (1.0)	34 (1.6)
	206 (1.9)	221 (1.9)	224 (2.0)
Nation	33 (0.9)	32 (0.7)	36 (1.0)
	204 (0.9)	219 (1.6)	226 (1.5)
PARENTS' EDUCATION			
College graduate			
State	21 (1.9)	31 (1.8)	47 (2.4)
	208 (3.4)	226 (2.6)	230 (2.7)
Nation	21 (1.2)	30 (1.0)	49 (1.2)
	209 (2.2)	224 (2.1)	231 (1.8)
Some after HS			
State	26 (2.9)	35 (3.4)	39 (3.9)
	217 (5.1)	226 (3.7)	231 (3.3)
Nation	32 (2.5)	32 (2.3)	36 (2.4)
	213 (2.5)	223 (3.4)	231 (3.6)
HS graduate			
State	32 (2.6)	39 (2.6)	29 (2.7)
	210 (4.1)	215 (3.4)	216 (3.1)
Nation	36 (2.2)	32 (2.0)	32 (2.5)
	205 (2.6)	215 (3.7)	216 (2.4)
HS non-graduate			
State	53 (5.2)	30 (4.4)	17 (3.0)
	*** (***)	*** (***)	*** (***)
Nation	63 (4.0)	26 (3.2)	12 (2.3)
	193 (3.3)	203 (6.4)	*** (***)
I don't know			
State	36 (1.8)	39 (1.7)	23 (1.4)
	203 (2.7)	217 (2.8)	215 (2.7)
Nation	40 (1.5)	34 (1.1)	26 (1.4)
	201 (1.6)	216 (2.4)	217 (2.1)
GENDER			
Male			
State	28 (2.0)	34 (1.5)	38 (2.0)
	201 (2.4)	219 (2.6)	222 (2.2)
Nation	31 (1.1)	32 (1.1)	38 (1.4)
	198 (1.7)	214 (2.0)	222 (1.8)
Female			
State	33 (1.9)	36 (1.4)	31 (1.9)
	210 (2.2)	222 (2.0)	227 (2.4)
Nation	34 (1.3)	32 (0.9)	34 (1.1)
	208 (1.3)	224 (1.8)	229 (1.7)

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within ± 2 standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). ! Interpret with caution -- the nature of the sample does not allow accurate determination of the variability of this statistic. *** Sample size is insufficient to permit a reliable estimate (fewer than 62 students).

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TABLE A30 | **Students' Reports on Talking With Friends and Family About Reading**

	Almost Every Day	Once or Twice a Week	Once or Twice a Month	Never or Hardly Ever
	Percentage and Proficiency	Percentage and Proficiency	Percentage and Proficiency	Percentage and Proficiency
TOTAL				
State	27 (1.2) 215 (2.1)	35 (1.2) 223 (1.5)	16 (0.8) 218 (2.9)	22 (1.0) 212 (2.4)
Nation	27 (0.7) 214 (1.5)	35 (1.0) 224 (1.2)	15 (0.7) 217 (1.9)	24 (0.9) 208 (1.5)
RACE/ ETHNICITY				
White				
State	26 (1.4) 225 (2.0)	37 (1.4) 228 (1.5)	16 (0.9) 224 (3.0)	21 (1.2) 218 (2.5)
Nation	24 (0.8) 225 (2.0)	38 (1.3) 231 (1.4)	16 (0.8) 223 (2.1)	23 (1.2) 215 (1.7)
Black				
State	32 (3.1) 185 (2.9)	28 (2.3) 194 (4.0)	17 (1.8) *** (** *)	23 (2.4) 190 (4.8)
Nation	36 (1.6) 193 (2.1)	27 (1.6) 196 (3.8)	10 (1.1) 190 (4.3)	26 (1.4) 190 (3.2)
Hispanic				
State	32 (2.6) 191 (4.1)	31 (3.3) 207 (4.5)	16 (2.7) *** (** *)	22 (2.6) *** (** *)
Nation	31 (1.9) 200 (2.5)	34 (1.6) 205 (3.3)	12 (1.5) 202 (4.9)	23 (1.8) 197 (3.0)
TYPE OF COMMUNITY				
Adv. urban				
State	23 (5.3)! *** (** *)	41 (4.9)! 239 (5.2)!	16 (1.7)! *** (** *)	20 (5.1)! *** (** *)
Nation	22 (2.4)! 239 (7.1)!	39 (3.2)! 245 (5.9)!	19 (2.9)! *** (** *)	19 (3.2)! *** (** *)
Disadv. urban				
State	37 (3.0)! 190 (6.0)!	26 (2.1)! 191 (4.5)!	14 (2.0)! *** (** *)	23 (3.2)! 193 (5.1)!
Nation	36 (1.6) 191 (2.9)	28 (1.5) 188 (4.7)	11 (1.3) 191 (6.5)	25 (1.6) 185 (3.0)
Extreme rural				
State	26 (3.6)! *** (** *)	38 (4.7)! 227 (3.5)!	17 (2.7)! *** (** *)	18 (2.7)! *** (** *)
Nation	26 (1.8) 218 (3.5)	39 (1.6) 228 (3.8)	14 (1.7) 213 (6.5)!	22 (1.9) 209 (4.4)!
Other				
State	26 (1.5) 221 (2.2)	35 (1.6) 225 (1.8)	15 (1.0) 221 (3.7)	23 (1.3) 215 (2.9)
Nation	26 (0.8) 216 (1.9)	35 (1.4) 225 (1.3)	15 (0.6) 218 (2.1)	24 (1.1) 209 (1.6)

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TABLE A30 (continued)

Students' Reports on Talking With Friends and Family About Reading

	Almost Every Day	Once or Twice a Week	Once or Twice a Month	Never or Hardly Ever
	Percentage and Proficiency	Percentage and Proficiency	Percentage and Proficiency	Percentage and Proficiency
TOTAL				
State	27 (1.2)	35 (1.2)	16 (0.8)	22 (1.0)
	215 (2.1)	223 (1.5)	218 (2.9)	212 (2.4)
Nation	27 (0.7)	35 (1.0)	15 (0.7)	24 (0.9)
	214 (1.5)	224 (1.2)	217 (1.9)	208 (1.5)
PARENTS' EDUCATION				
College graduate				
State	29 (2.0)	39 (1.9)	14 (1.1)	18 (1.4)
	220 (2.9)	230 (2.2)	225 (3.9)	217 (4.2)
Nation	27 (1.0)	40 (1.5)	14 (0.9)	20 (1.3)
	222 (2.3)	231 (2.0)	226 (2.5)	214 (2.6)
Some after HS				
State	29 (2.6)	34 (3.1)	20 (2.3)	18 (2.3)
	229 (4.1)	226 (3.6)	*** (** *)	*** (** *)
Nation	28 (2.6)	36 (2.0)	16 (1.9)	20 (2.1)
	222 (4.4)	230 (3.3)	*** (** *)	214 (4.4)
HS graduate				
State	27 (2.3)	33 (2.5)	16 (2.3)	24 (2.4)
	211 (4.0)	220 (3.1)	*** (** *)	211 (4.1)
Nation	31 (1.9)	31 (2.2)	16 (1.6)	22 (2.2)
	211 (3.8)	220 (3.5)	211 (5.0)	206 (2.9)
HS non-graduate				
State	27 (3.6)	31 (3.7)	11 (3.4)	31 (5.0)
	*** (** *)	*** (** *)	*** (** *)	*** (** *)
Nation	32 (3.8)	27 (2.9)	11 (2.4)	30 (4.0)
	202 (4.9)	201 (5.1)	*** (** *)	190 (5.7)
I don't know				
State	25 (1.5)	33 (2.0)	18 (1.4)	25 (1.5)
	208 (3.3)	216 (2.2)	211 (4.2)	208 (2.2)
Nation	24 (1.1)	33 (1.5)	15 (1.0)	28 (1.4)
	207 (2.7)	216 (1.7)	211 (3.0)	206 (1.5)
GENDER				
Male				
State	25 (1.4)	32 (1.5)	19 (1.2)	24 (1.6)
	213 (2.5)	221 (2.2)	215 (3.5)	210 (3.1)
Nation	24 (1.0)	33 (1.6)	16 (1.0)	26 (1.4)
	210 (2.2)	220 (1.7)	214 (2.6)	206 (1.8)
Female				
State	29 (1.6)	38 (1.7)	14 (1.0)	19 (1.1)
	217 (2.5)	224 (1.7)	222 (3.3)	213 (2.6)
Nation	29 (1.0)	38 (1.0)	13 (0.6)	20 (0.9)
	216 (1.6)	227 (1.3)	221 (2.1)	211 (2.2)

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within ± 2 standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). ! Interpret with caution -- the nature of the sample does not allow accurate determination of the variability of this statistic. *** Sample size is insufficient to permit a reliable estimate (fewer than 62 students).

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TABLE A31 | **Students' Reports on the Amount of Time Spent Watching Television Each Day**

	One Hour or Less	Two Hours	Three Hours	Four to Five Hours	Six Hours or More
	Percentage and Proficiency	Percentage and Proficiency	Percentage and Proficiency	Percentage and Proficiency	Percentage and Proficiency
TOTAL					
State	18 (1.2) 225 (2.8)	20 (1.1) 225 (2.1)	19 (0.7) 222 (1.7)	23 (1.1) 217 (1.7)	20 (1.2) 198 (2.4)
Nation	18 (0.8) 220 (1.9)	21 (0.9) 223 (1.6)	19 (0.7) 223 (1.3)	22 (0.9) 216 (1.5)	21 (0.8) 198 (1.7)
RACE/ ETHNICITY					
White					
State	20 (1.3) 229 (3.0)	22 (1.3) 229 (2.3)	21 (0.9) 226 (1.7)	23 (1.2) 222 (1.9)	14 (1.2) 210 (2.6)
Nation	19 (1.1) 226 (2.2)	23 (1.2) 230 (1.6)	21 (1.0) 229 (1.5)	22 (1.0) 222 (2.0)	14 (0.9) 208 (3.0)
Black					
State	10 (1.7) *** (**.*)	9 (1.3) *** (**.*)	12 (1.3) *** (**.*)	21 (2.7) 199 (4.9)	48 (2.7) 181 (4.5)
Nation	12 (1.4) 196 (4.1)	11 (1.0) 191 (3.8)	12 (1.2) 199 (5.0)	19 (1.4) 197 (2.7)	45 (1.9) 188 (2.4)
Hispanic					
State	15 (2.2) *** (**.*)	18 (2.6) *** (**.*)	16 (2.4) *** (**.*)	24 (3.0) *** (**.*)	27 (3.1) *** (**.*)
Nation	16 (1.2) 199 (4.8)	20 (1.8) 205 (4.1)	14 (1.4) 205 (3.8)	21 (1.6) 201 (3.2)	28 (1.8) 194 (3.8)
TYPE OF COMMUNITY					
Adv. urban					
State	35 (6.2)! 247 (6.6)!	31 (3.4)! *** (**.*)	16 (2.0)! *** (**.*)	12 (3.8)! *** (**.*)	6 (2.3)! *** (**.*)
Nation	26 (3.4)! 244 (8.0)!	27 (2.0)! 247 (4.0)!	18 (2.5)! *** (**.*)	21 (1.6)! 231 (6.1)!	8 (2.4)! *** (**.*)
Disadv. urban					
State	14 (1.9)! *** (**.*)	12 (2.6)! *** (**.*)	12 (1.6)! *** (**.*)	24 (3.3)! 200 (5.8)!	39 (5.0)! 182 (3.8)!
Nation	14 (1.6) 191 (4.3)	13 (1.5) 189 (5.0)	13 (1.0) 192 (5.6)	23 (2.0) 192 (3.1)	38 (2.7) 182 (3.3)
Extreme rural					
State	21 (2.7)! *** (**.*)	20 (2.8)! *** (**.*)	21 (3.6)! *** (**.*)	25 (1.5)! *** (**.*)	13 (2.7)! *** (**.*)
Nation	19 (1.8) 218 (3.3)	23 (2.3) 225 (4.4)!	18 (2.0) 225 (3.8)	23 (1.5) 219 (3.6)	16 (2.0) 204 (4.1)!
Other					
State	17 (1.3) 226 (2.9)	20 (1.5) 228 (1.7)	21 (1.1) 222 (2.5)	24 (1.4) 220 (1.5)	17 (1.5) 206 (3.3)
Nation	18 (1.0) 220 (2.3)	21 (1.2) 223 (1.7)	20 (0.9) 224 (1.3)	21 (1.1) 218 (1.9)	20 (1.0) 201 (2.1)

(continued on next page)

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TABLE A31 (continued)

Students' Reports on the Amount of Time Spent Watching Television Each Day

	One Hour or Less	Two Hours	Three Hours	Four to Five Hours	Six Hours or More
	Percentage and Proficiency	Percentage and Proficiency	Percentage and Proficiency	Percentage and Proficiency	Percentage and Proficiency
TOTAL					
State	18 (1.2)	20 (1.1)	19 (0.7)	23 (1.1)	20 (1.2)
	225 (2.8)	225 (2.1)	222 (1.7)	217 (1.7)	198 (2.4)
Nation	18 (0.8)	21 (0.9)	19 (0.7)	22 (0.9)	21 (0.8)
	220 (1.9)	223 (1.6)	223 (1.3)	216 (1.5)	198 (1.7)
PARENTS' EDUCATION					
College graduate					
State	22 (2.2)	24 (1.5)	19 (1.4)	19 (1.8)	17 (1.5)
	232 (4.1)	233 (2.9)	230 (2.6)	219 (3.2)	198 (2.5)
Nation	20 (1.3)	22 (1.2)	19 (1.4)	19 (1.0)	19 (1.2)
	233 (3.0)	231 (2.4)	233 (2.3)	222 (2.7)	202 (2.4)
Some after HS					
State	17 (2.6)	16 (1.9)	17 (2.5)	31 (2.6)	19 (2.3)
	*** (**,*)	*** (**,*)	*** (**,*)	226 (4.0)	*** (**,*)
Nation	14 (1.9)	26 (2.6)	19 (2.0)	24 (2.3)	18 (2.3)
	227 (5.2)	227 (4.4)	229 (3.5)	226 (4.2)	202 (4.0)
HS graduate					
State	13 (2.1)	16 (2.2)	22 (1.9)	26 (2.6)	23 (2.7)
	*** (**,*)	*** (**,*)	217 (3.8)	218 (3.3)	198 (4.9)
Nation	14 (1.5)	16 (1.9)	23 (2.1)	28 (1.9)	19 (1.9)
	210 (4.4)	219 (4.1)	219 (3.4)	213 (3.1)	197 (4.1)
HS non-graduate					
State	22 (4.0)	17 (3.8)	18 (4.5)	23 (4.2)	20 (3.9)
	*** (**,*)	*** (**,*)	*** (**,*)	*** (**,*)	*** (**,*)
Nation	15 (3.1)	17 (3.1)	19 (2.8)	18 (2.7)	31 (3.8)
	*** (**,*)	*** (**,*)	*** (**,*)	*** (**,*)	191 (5.3)
I don't know					
State	16 (1.4)	19 (1.6)	19 (1.5)	23 (1.5)	23 (1.7)
	219 (3.6)	217 (3.1)	215 (2.6)	211 (2.5)	196 (3.9)
Nation	18 (0.9)	20 (1.3)	17 (1.0)	22 (1.4)	22 (1.0)
	210 (2.6)	217 (2.0)	215 (2.3)	211 (2.0)	197 (2.2)
GENDER					
Male					
State	17 (1.7)	19 (1.3)	18 (1.1)	24 (1.5)	23 (1.7)
	224 (3.7)	224 (2.4)	222 (2.6)	214 (2.2)	196 (3.2)
Nation	17 (1.0)	20 (1.1)	19 (1.0)	22 (1.0)	22 (1.0)
	216 (2.6)	219 (2.1)	219 (1.9)	214 (1.8)	196 (1.9)
Female					
State	19 (1.2)	21 (1.4)	21 (1.0)	21 (1.3)	18 (1.3)
	226 (3.2)	227 (2.8)	222 (2.1)	220 (2.0)	200 (3.2)
Nation	19 (1.3)	22 (1.0)	19 (1.1)	21 (1.2)	19 (1.0)
	224 (2.2)	228 (2.1)	227 (1.7)	219 (2.0)	202 (2.4)

The NAEP reading scale ranges from 0 to 500. The standard errors of the statistics appear in parentheses. It can be said with about 95 percent confidence that, for each population of interest, the value for the entire population is within ± 2 standard errors of the estimate for the sample. In comparing two estimates, one must use the standard error of the difference (see Appendix A for details). ! Interpret with caution -- the nature of the sample does not allow accurate determination of the variability of this statistic. *** Sample size is insufficient to permit a reliable estimate (fewer than 62 students).

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The large number of states and territories participating in the Trial State Assessment provided many challenges, including the need to develop different reports, customized for each of the participating jurisdictions based on its characteristics and the results of its assessed students. To meet this challenge, a computerized report generation system was employed that created text, tables, and graphics for each jurisdiction's unique report. This system, created by Jennifer Nelson, was designed to take advantage of mainframe computer speed and accuracy for the data computations, interfaced with high-quality text formatting and graphical output procedures. Laura Jerry led the computer-based development of the reading report. John Mazzeo oversaw the analyses for the reports, with significant input from Nancy Allen and Steve Isham. Drew Bowker, James Carlson, Hua Hua Chang, John Donoghue, John Ferris, Y. Fai Fong, David Freund, Angela Grima, Frank Jenkins, Bruce Kaplan, Edward Kulick, Phillip Leung, Jo-lin Liang, Eiji Muraki, Craig Pizzuti, and Spencer Swinton collaborated to generate the data, conduct the analyses, and check the results. Al Rogers developed and generated the maps.

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